JUL 27 1994

Station # 12

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 606907

2. To: (Receiving Organization)	3. From: (Originating Organization)	4. Related EDT No.:
Distribution	85900	N/A
5. Proj./Prog./Dept./Div.:	**6. Cog. Engr.:**	**7. Purchase Order No.:**
Environmental Restoration	A.D. Krug	N/A
8. Originator Remarks:		**9. Equip./Component No.:**
Release to Record File		N/A
		10. System/Bldg./Facility:
		N/A
11. Receiver Remarks:		**12. Major Assm. Dwg. No.:**
		N/A
		13. Permit/Permit Application No.:
		N/A
		14. Required Response Date:

AUG 1994
RECEIVED
EDMC

15. DATA TRANSMITTED

(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Approval Designator	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	WHC-SD-EN-DP-088		0	Summary Report: Source Data Compilation for 100-HR-1 Operable Unit	N/A	1/2	1	

16. KEY

Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 4. Review 2. Release 5. Post-Review 3. Information 6. Dist. (Receipt Acknow. Required)	1. Approved 4. Reviewed no/comment 2. Approved w/comment 5. Reviewed w/comment 3. Disapproved w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.
1/2	1	Cog.Eng. A.D. Krug	A.D. Krug	7/27/94	H6-02	ERC			H6-08	3	
1/2	1	Cog. Mgr. R.P. Henckel	R.P. Henckel		H6-02						
		QA									
		Safety									
		Env.									
3		Central Files (2)			L8-04						
3		EPIC (2) EDMC (1)			H6-08						

18.	19.	20.	21. DOE APPROVAL (if required)
A.D. Krug A.D. Krug 7/27/94 Signature of EDT Originator Date	Authorized Representative for Receiving Organization Date	R.P. Henckel 7/27/94 Cognizant Manager Date	Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments

BD-7400-172-2 (04/94) GEF097

INSTRUCTIONS FOR COMPLETION OF THE ENGINEERING DATA TRANSMITTAL

(USE BLACK INK OR TYPE)

BLOCK	TITLE	
(1)*	EDT	• Pre-assigned EDT number.
(2)	To: (Receiving Organization)	• Enter the individual's name, title of the organization, or entity (e.g., Distribution) that the EDT is being transmitted to.
(3)	From: (Originating Organization)	• Enter the title of the organization originating and transmitting the EDT.
(4)	Related EDT No.	• Enter EDT numbers which relate to the data being transmitted.
(5)*	Proj./Prog./Dept./Div.	• Enter the Project/Program/Department/Division title or Project/Program acronym or Project Number, Work Order Number or Organization Code.
(6)*	Cognizant Engineer	• Enter the name of the individual identified as being responsible for coordinating disposition of the EDT.
(7)	Purchase Order No.	• Enter related Purchase Order (P.O.) Number, if available.
(8)*	Originator Remarks	• Enter special or additional comments concerning transmittal, or "Key" retrieval words may be entered.
(9)	Equipment/Component No.	• Enter equipment/component number of affected item, if appropriate.
(10)	System/Bldg./Facility	• Enter appropriate system, building or facility number, if appropriate.
(11)	Receiver Remarks	• Enter special or additional comments concerning transmittal.
(12)	Major Assm. Dwg. No.	• Enter applicable drawing number of major assembly, if appropriate.
(13)	Permit/Permit Application No.	• Enter applicable permit or permit application number, if appropriate.
(14)	Required Response Date	• Enter the date a response is required from individuals identified in Block 17 (Signature/Distribution).
(15)*	Date Transmitted	
	(A)* Item Number	• Enter sequential number, beginning with 1, of the information listed on EDT.
	(B)* Document/Drawing No.	• Enter the unique identification number assigned to the document or drawing being transmitted.
	(C)* Sheet No.	• Enter the sheet number of the information being transmitted. If no sheet number, leave blank.
	(D)* Rev. No.	• Enter the revision number of the information being transmitted. If no revision number, leave blank.
	(E)* Title or Description of Data Transmitted	• Enter the title of the document or drawing or a brief description of the subject if no title is identified.
	(F)* Impact Level	• Enter the appropriate Impact Level (Block 15). Also, indicate the appropriate approvals for each item listed, i.e., SQ, ESQ, etc. Use NA for non-engineering documents.
	(G) Reason for Transmittal	• Enter the appropriate code to identify the purpose of the data transmittal (see Block 16).
	(H) Originator Disposition	• Enter the appropriate disposition code (see Block 16).
	(I) Receiver Disposition	• Enter the appropriate disposition code (see Block 16).
(16)	Key	• Number codes used in completion of Blocks 15 (G), (H), and (I), and 17 (G), (H) (Signature/Distribution).
(17)	Signature/Distribution	
	(G) Reason	• Enter the code of the reason for transmittal (Block 16).
	(H) Disposition	• Enter the code for the disposition (Block 16).
	(J) Name	• Enter the signature of the individual completing the Disposition 17 (H) and the Transmittal.
	(K)* Signature	• Obtain appropriate signature(s).
	(L)* Date	• Enter date signature is obtained.
	(M)* MSIN	• Enter MSIN. Note: If Distribution Sheet is used, show entire distribution (including that indicated on Page 1 of the EDT) on the Distribution Sheet.
(18)	Signature of EDT Originator	• Enter the signature and date of the individual originating the EDT (entered prior to transmittal to Receiving Organization). If the EDT originator is the cognizant engineer, sign both Blocks 17 and 18.
(19)	Authorized Representative for Receiving Organization	• Enter the signature and date of the individual identified by the Receiving Organization as authorized to approve disposition of the EDT and acceptance of the data transmitted, as applicable.
(20)*	Cognizant Manager	• Enter the signature and date of the cognizant manager. (This signature is authorization for release.)
(21)*	DOE Approval	• Enter DOE approval (if required) by letter number and indicate DOE action.

*Asterisk denote the required minimum items check by Configuration Documentation prior to release; these are the minimum release requirements.

Date Received: 6/1/94 NS

INFORMATION RELEASE REQUEST

Reference: WHC-CM-3-4

Complete for all Types of Release

Purpose

- [ ] Speech or Presentation (Check only one suffix)
  - [ ] Full Paper
  - [ ] Summary
  - [ ] Abstract
  - [ ] Visual Aid
- [ ] Speakers Bureau
- [ ] Poster Session
- [ ] Videotape
- [ ] Reference
- [X] Technical Report
- [ ] Thesis or Dissertation
- [ ] Manual
- [ ] Brochure/Flier
- [ ] Software/Database
- [ ] Controlled Document
- [ ] Other

ID Number (include revision, volume, etc.)
WHC-SD-EN-DP-088, Rev. 0

List attachments.

Date Release Required
May 31, 1994

Title: Summary Report: Source Data Compilation for 100-HR-1 Operable Unit

Unclassified Category: UC- N/A

Impact Level: N/A

New or novel (patentable) subject matter? [X] No [ ] Yes
If "Yes", has disclosure been submitted by WHC or other company?
[ ] No [ ] Yes Disclosure No(s).

Information received from others in confidence, such as proprietary data, trade secrets, and/or inventions?
[X] No [ ] Yes (Identify)

Copyrights? [X] No [ ] Yes
If "Yes", has written permission been granted?
[ ] No [ ] Yes (Attach Permission)

Trademarks?
[X] No [ ] Yes (Identify)

Complete for Speech or Presentation

Title of Conference or Meeting: NA

Group or Society Sponsoring:

Date(s) of Conference or Meeting:

City/State:

Will proceedings be published? [ ] Yes [ ] No
Will material be handed out? [ ] Yes [ ] No

Title of Journal: N/A

CHECKLIST FOR SIGNATORIES

Review Required per WHC-CM-3-4	Yes	No	Reviewer - Signature Indicates Approval: Name (printed)	Signature	Date
Classification/Unclassified Controlled Nuclear Information	[ ]	[X]			
Patent - General Counsel	[ ]	[X]			
Legal - General Counsel	[ ]	[X]			
Applied Technology/Export Controlled Information or International Program	[ ]	[X]			
WHC Program/Project	[ ]	[X]			
Communications	[ ]	[X]			
RL Program/Project	[ ]	[X]			
Publication Services	[ ]	[X]	L. Hermann	L Hermann	5/3/94
Other Program/Project	[ ]	[X]			

Information conforms to all applicable requirements. The above information is certified to be correct.

	Yes	No
References Available to Intended Audience	[ ]	[X]
Transmit to DOE-HQ/Office of Scientific and Technical Information	[ ]	[X]

Author/Requestor (Printed/Signature) A. D. Krug — Date 5-27-94

Intended Audience
[ ] Internal [ ] Sponsor [X] External

Responsible Manager (Printed/Signature) R. P. Henckel — Date 5-27-94

INFORMATION RELEASE ADMINISTRATION APPROVAL STAMP

Stamp is required before release. Release is contingent upon resolution of mandatory comments.

Date Cancelled | Date Disapproved

THIS PAGE INTENTIONALLY
LEFT BLANK

Date Request Received: 10/16/90 DS

TECHNICAL INFORMATION RELEASE REQUEST

Reference: WHC-CM-3-4

Complete for all Types of Release

Purpose

- ☐ Speech or Presentation
  - ☐ Full Paper
  - ☐ Summary
  - ☐ Abstract
  - ☐ Visual Aid
- ☐ Speakers Bureau
- ☐ Poster Session
- ☒ Reference
- ☐ Technical Report
- ☐ Thesis or Dissertation
- ☐ Manual
- ☐ Brochure/Flier
- ☐ Software/Database
- ☐ Controlled Document
- ☒ Other: Report

Intended Audience

- ☒ Public
- ☐ Sponsor-limited
- ☐ Internal

New Document Number (Document Clearance Administration will assign): TRAC-0014

Existing Identification Number:

If Previously Cleared, List Document No.:

Date Clearance Required: 10/16/90

Title: Summary Report: Source Data Compilation for 100-HR-1 Operable Unit

Lead Author Name	Impact Level	Phone	MSIN	Other Author(s) Name (s)
~~A.D. KRUG~~ Advanced Sciences Inc.	4	6-5634	H4-55	

Project or Program	Lead Org Code	Sponsor Agency
ER	81221	(DOE) DOT, NRC, USGS,

Editor Name	Phone	DOE/HQ Assistant Secretary For:
NA	NA	DP, EH, ER, (EM), RW, NE

New or novel (patentable) subject matter? ☒ No ☐ Yes
If "Yes", has disclosure been submitted by WHC or other company?
☐ No ☐ Yes Disclosure No(s).

Information received from others in confidence, such as proprietary data, trade secrets, and/or inventions?
☒ No ☐ Yes (Identify)

Copyrights? ☒ No ☐ Yes
If "Yes", has written permission been granted?
☐ No ☐ Yes (Attach Permission)

Trademarks?
☒ No ☐ Yes (Identify)

Complete for Speech or Presentation

Complete Title of Conference or Meeting: NA

Group or Society Sponsoring: NA

Dates of Conference or Meeting: NA

City/State: NA

Will a Proceedings be Published? ☐ Yes ☒ No
Will you hand out material at the meeting? ☐ Yes ☒ No

For a journal submission, provide complete title of journal: NA

Cognizant Line Management

REQUESTOR Author: A.D. KRUG — Date: 10/15/90

COG MGR Peer Review: M.T. LAUTERBACH — Date: 10/15/90

LEVEL III Cognizant Manager: L.C. BROWN — Date: 10/16/90

Auth. Derivative Classifier — Date: 10/16/90

	Yes	No
Unclassified	☐	☐
Classified	☐	☐
UCNI	☐	☐

N/A per Sample's letter dated 4/27/90.

WHC Technical Program — Date: 10/22/90

	Yes	No	
Applied Technology	☐	☒	☒ Approve
Limited Disclosure	☐	☒	☐ Disapprove

Comments (Please Initial)
This is being cleared so it can be provided to Regulators on request. Faye Stone

INFORMATION ONLY

Document Clearance Administration

General Counsel — Date: 10/18/90

	Remove	Affix
Copyright License Notice	☐	☐
Purpose and Use	☐	☐
Patent Status	☐	☐
Legal Disclaimer	☐	☐
Proprietary Information	☐	☐
Computer Software Notice	☐	☐

☒ Approve ☐ Disapprove

Document Clearance Administration Release Stamp

APPROVED FOR RELEASE OFFICIAL DOCUMENT NS Date 11/5/90

DOE Technical Program — Date: 10/29/90
☒ Approve ☐ Disapprove

Communications N/A — Date: 10/16/90
☐ Approve ☐ Disapprove

Publications Services N/A — Date: 10/16/90
☐ Editorial Review Only ☐ Approve ☐ Disapprove

Other: NA — Date: 11/5/90
☐ Approve ☐ Disapprove

THIS PAGE INTENTIONALLY
LEFT BLANK

SUPPORTING DOCUMENT

1. Total Pages 68

2. Title
Summary Report: Source Data Compilation for 100-HR-1 Operable Unit

3. Number
WHC-SD-EN-DP-088

4. Rev No.
0

5. Key Words
Process effluent pipelines; 105-H pluto crib; 107-H sludge burial trench; and septic systems

APPROVED FOR PUBLIC RELEASE
5/31/94 N. Silvi

6. Author
Name: A. D. Krug
Signature 5-25-94
Organization/Charge Code 81221/P711F

7. Abstract

WHC, 1994, *Summary Report: Source Data Compilation for 100-HR-1 Operable Unit*, WHC-SD-EN-DP-088, Rev. 0, prepared by Advanced Sciences, Inc., for Westinghouse Hanford Company, Richland, Washington.

8. PURPOSE AND USE OF DOCUMENT - This document was prepared for use within the U.S. Department of Energy and its contractors. It is to be used only to perform, direct, or integrate work under U.S. Department of Energy contracts. This document is not approved for public release until reviewed.

PATENT STATUS - This document copy, since it is transmitted in advance of patent clearance, is made available in confidence solely for use in performance of work under contracts with the U.S. Department of Energy. This document is not to be published nor its contents otherwise disseminated or used for purposes other than specified above before patent approval for such release or use has been secured, upon request, from the Patent Counsel, U.S. Department of Energy Field Office, Richland.

DISCLAIMER - This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, nor any of their contractors, subcontractors or their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or any third party's use or the results of such use of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

9. Impact Level NA

10. RELEASE STAMP

OFFICIAL RELEASE BY WHC (11)
DATE JUL 27 1994
Station #12

THIS PAGE INTENTIONALLY
LEFT BLANK

SUMMARY

This report summarizes the activities and findings of the source data compilation task for the 100-HR-1 Operable Unit at the Hanford Site conducted by ASI over the period December 1989 to May 1990. Performance of this work involved two activities: 1) a plan and report search, consisting of a review of documents, engineering drawings, and photographs relevant to the 100-HR-1 RCRA Facility Investigation/Corrective Measures Study (RFI/CMS); and 2) a meeting and interview activity consisting of identifying, locating, and conducting interviews with former and current 100-H Area personnel having knowledge of past waste disposal practices, the area decommissioning process, and H Reactor stack emissions.

Searches for historical records were made at major Hanford organizations. Lists and descriptions of locations where searches proved successful and unsuccessful are provided, as is a summary of good choices for locating specific types of information.

Copies of relevant information identified during the plan and report search were obtained and evaluated. Each information item was assigned a unique number and entered into a database developed for this task. Each record in the database contains information in up to ten fields. A printout of the database is provided, along with an explanation of each of the data fields.

Interviews were documented on an Interview Worklist developed for this task. Interview Worklists were also assigned unique numbers and entered into the task database. A list of interviewees and an example of the Interview Worklist are provided.

This task focused on more precisely defining the locations of the following 100-HR-1 waste units: 1) the buried 100-H Area process effluent pipelines, 2) the 105-H pluto crib (116-H-4), 3) the 107-H sludge burial trench (116-H-7), and 4) the two septic systems within the operable unit boundary.

Sufficient data were obtained on the route and location of the effluent pipelines to suggest that it may be possible to survey the effluent pipeline locations directly, without first performing the planned geophysical survey of the route. Information relevant to the planned integrity assessment of the pipelines was obtained and is discussed.

Data obtained on the 105-H pluto crib are sufficient to determine the precise location of the unit. Rubble and ground disturbances from demolition of facilities in close proximity to the pluto crib location, in particular the H Reactor exhaust stack and the 1608-H pumping station, may complicate interpretation of a planned geophysical survey of the crib site.

Data obtained suggest two possible locations for the 107-H sludge burial trench. It was not possible to determine which of the two locations is accurate. It is recommended that the planned geophysical survey at 100-HR-1 be expanded to include these two locations in an effort to determine the precise location of this waste unit.

Data obtained on the two sanitary septic systems within the operable unit are sufficient to determine the precise locations of these systems. It is recommended that an attempt be made to survey the septic tank locations without the use of a geophysical survey. Information relevant to the planned septic tank sludge sampling and analysis task was obtained and is presented.

Little new information was obtained concerning H Reactor exhaust stack emissions. Classified reactor operating log books and records may contain additional stack emissions data but were not reviewed as part of this task. Information on several previously unidentified potential waste units within 100-HR-1 was obtained and is presented.

CONTENTS

TABLES

1.0 INTRODUCTION

1.1 PURPOSE

Advanced Sciences, Inc. (ASI), a contractor to the U. S. Department of Energy Richland Operations (DOE-RL), working under task order to Westinghouse Hanford Company (WHC), has carried out the source data compilation task for the 100-HR-1 Operable Unit at the Hanford Site. The activity was carried out during the time period December 1989 to May 1990. This report summarizes the activities carried out under this task order. Performance of this task entailed obtaining, compiling, and evaluating data related to the characteristics of the 100-HR-1 waste management units and the wastes associated with those units.

Activities for this task were conducted in accordance with Document DOE/RL 88-35 ("Draft Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study Work Plan for the 100-HR-1 Operable Unit Hanford Site", U.S. Department of Energy, Richland, Washington, June 1989), hereafter referred to as the Work Plan. The purpose of the RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) is to determine the nature and extent of the threat presented by releases of hazardous substances from the 100-HR-1 Operable Unit, and to evaluate proposed corrective measures for such releases. The data compiled under this task will be used to plan and proceed with Phase I RFI operable unit characterization activities for 100-HR-1. In addition, the data are needed for the 100-HR-1 CMS in order to evaluate and select appropriate corrective alternatives.

1.2 SCOPE AND OBJECTIVES

The scope of this study is limited to source data compilation for the 100-HR-1 Operable Unit. As discussed in the Work Plan, the 100-H Area has been subdivided into three operable units: 100-HR-1, 100-HR-2, and 100-HR-3. 100-HR-1 is known as a reactor liquid effluent operable unit because it contains the liquid waste disposal facilities within the 100-H Area. The scope of the 100-HR-1 RFI/CMS includes investigation of waste sources, contaminated soils, air, and terrestrial biota.

Some of the information collected under this task also contains data potentially relevant to RFI/CMS activities at 100-HR-2 (solid waste) and 100-HR-3 (groundwater/surface water) operable units. Analysis of information relevant to other operable units is beyond the scope of the present study.

As set forth in the Work Plan, the overall objective of the Source Data Compilation Task (Work Plan Task 1, Subtask 1a) was to obtain additional information on 100-HR-1 waste management units in order to refine the operable unit conceptual model and to guide site characterization activities (i.e., sampling locations and techniques). The Work Plan called for this task specifically to focus on:

- more precisely defining the locations of the process effluent pipelines, pluto crib, 107-H sludge burial trench, and two septic systems within 100-HR-1

- gathering information concerning radioactive air emissions from the H Reactor stack
- gathering, for further evaluation, information regarding any other waste units within 100-HR-1 not already identified during the Work Plan scoping process.

The scope of work for this task was broadened to include an attempt to find information that may assist in responding to the Washington Department of Ecology's (Ecology's) technical review comments on the 100-HR-1 RFI/CMS Work Plan. Ecology's review comments are contained in a letter from L. Goldstein (Ecology) to J. Broderick (DOE-RL) dated October 12, 1989. WHC dispositions to Ecology's comments have been entered into the task database as Document DC-019.

1.3 APPROACH

As outlined in the Work Plan, two activities--a plan and report search, and a meeting and interview activity--were conducted to accomplish the task objectives.

1.3.1 Plan and Report Search (Work Plan Activity 1a-1)

This activity involved a literature search consisting of a review of engineering drawings, photographs, and environmental and decommissioning reports. Any additional information that was deemed pertinent and which was available was also reviewed. Copies of materials directly relevant to the task objectives were obtained. To facilitate evaluation of the data, the information collected has been entered into a database developed for this task. A printout of the database, and an explanation of the fields it contains, are provided in Appendix A. Items entered into the database were assigned unique "ASI-Numbers" which are referenced throughout this report. Some of the information reviewed was judged to have possible, rather than definite, relevance to planned 100-HR-1 RFI/CMS activities. In such cases, the information was entered into the task database for future reference, but a copy was not obtained.

1.3.2 Meetings and Interviews (Work Plan Activity 1a-2)

This activity involved identifying, locating, and conducting interviews with former and current 100-H Area personnel having knowledge of past waste disposal practices, the area decommissioning process, and H Reactor stack emissions. Personnel who participated in the interview process are listed in Appendix B, along with personnel who were contacted and declined to participate. Interviews are documented on an Interview Worklist (Appendix C) developed for this task. The Interview Worklists have also been entered into the task database (Appendix A).

1.4 CONTENTS OF REPORT

This report is presented in five sections. A discussion of the various localities where information searches were conducted is presented in Section 2. Section 3 summarizes the findings of this study, including information for response to Ecology's comments on the Work Plan. Section 4 summarizes

recommended changes to the Work Plan resulting from this task. Section 5 presents recommendations on the approach to future operable unit source data compilation tasks. Materials presented in the appendices include a printout of the task database with an explanation of the database structure (Appendix A), a list of interviewees (Appendix B), and an example of the Interview Worklist completed for each interview (Appendix C).

2.0 LOCALITIES WHERE SEARCHES FOR INFORMATION WERE CONDUCTED

Hanford Site historical records of the type required for the 100-HR-1 RFI/CMS are not presently available from one centrally located records repository. Record searches were conducted at numerous Hanford facilities, including those operated by DOE-RL, WHC, Pacific Northwest Laboratories (PNL), Kaiser Engineers Hanford Company (KEH), and Boeing Computer Services Richland (BCSR). Searches were also made of the personal files of several long-time Hanford personnel who have saved or come into possession of much historically valuable information over their careers. The search process revealed that in the years since H Reactor underwent deactivation in 1965 an unknown number of potentially relevant records may have been lost or destroyed.

In summary, it was determined that the drawing libraries in the Tri-Cities Professional Center (TCPC) and Energy Technology Center-1 (ETC-1) were good sources for engineering drawings; the Records Holding Area (RHA) was a good source for historical photographs; Ed Powers (WHC) and Dick Winship (WHC) were good sources for recent and decommissioning photographs, as well as for decommissioning reports and documents; and the Hanford Technical Library was a good general source for literature relating to waste management practices at the 100-H Area.

This section lists and describes all the locations where searches for information were conducted. Locations where searches proved successful are listed first, followed by locations where searches proved unsuccessful.

2.1 SUCCESSFUL SEARCHES

2.1.1 RHA-712 Building

- Information: Photographs, Documents
- Contact: Flo Ungefug, 376-6584
- Description:

A series of negatives from the period of original 100-H Area construction (1948-49), and several additional negatives from the early years of operation (1953-56), are available at the RHA. Negatives are stored and retrieved by box number. Several index books are available to help identify the box numbers containing relevant negatives. 100-H Area negatives were located in four different boxes: #2102, #2103, #2104, and #2105. Prints of many of the negatives in these four boxes are in books stored in box #7531. Selected negatives were checked out and taken to Photography-383 Federal Building for printing. Several documents identified through the literature search which relate to decommissioning and environmental surveillance for the 100 Areas were also obtained from the RHA.

2.1.2 Photography and Audiovisual-383 Federal Building

- Information: Photographs and Printing Service
- Contact: Barbara Snider, 376-7291
- Description:

Negatives checked out from the RHA were delivered to Photography for

printing. Prints of several photo series found in Ed Powers' collection in the 200 East Area were ordered here also. The negatives of the latter photo series, as well as many other Hanford series dating back to the 1960s, are controlled by Photography. Prints of these series may be ordered from Photography by providing them with the appropriate photo identification numbers.

2.1.3 2750-E, 200 East Area

- Information: Photographs, Engineering Drawings
- Contacts: Ed Powers, 373-2774
  Sylvia Kiser, 373-5521
- Description:

Ed Powers and Sylvia Kiser both have extensive files stemming from their long-term involvement with Decontamination and Decommissioning (D&D) activities in the 100 Areas. Mr. Powers was interviewed for this task (Interview IN-011). This group maintains a collection of microfilm drawings (aperture cards and a reader/printer), organized by area and building number, which supplemented the set of drawings available at ETC-1 and TCPC. Mr. Powers has a photo collection, which is mostly unsorted and uncataloged, containing both recent and historical D&D photos of many Hanford facilities. Several relevant photo series of the 100-H Area were identified in this collection and ordered from Photography. Ms. Kiser is the custodian of a collection of information on the deactivation of the 100 Areas which is located in the 165-KW Building in the 100-K Area (see below). Mr. Powers is the custodian of a similar collection located in a trailer at the 100-K Area (see below).

2.1.4 165-KW, 100-K Area

- Information: Deactivation and D&D Documents
- Contact: Sylvia Kiser, 373-5521
- Description:

The types of materials in this collection include miscellaneous deactivation and D&D documents, blueline engineering drawings, and certified vendor information files. With the exception of the drawings, these materials are not cataloged or organized. A number of reports, records, and pieces of correspondence dating from the 1960s and 1970s relating primarily to deactivation of the 100-H Area were retrieved by sorting through file cabinets and boxes. The drawing files contain historical drawings, some of which may not be contained in other collections at Hanford. These are arranged by drawing number but could not be efficiently searched because an index is not available. Vendor information files contained no information relevant to the 100-HR-1 RFI/CMS.

2.1.5 100-K Area Trailer

- Information: D&D Documents
- Contact: Ed Powers, 373-2774
- Description:

The trailer is located to the left of the gate just outside the

entrance to 100-K Area. It contains boxes of leftover D&D materials that were placed in storage here when offices in 1720-K Building were moved to the 200 Area. The materials are not cataloged or organized and consist primarily of miscellaneous D&D documents and files. One decommissioning report related to the 100-HR-1 RFI/CMS was retrieved.

2.1.6 ETC-1, Inner Area Document Control

- Information: Engineering Drawings
- Contact: Janis Bishop, 376-5165
- Description:

Many engineering drawings relevant to 100-HR-1 were identified and obtained from the microfilm engineering drawing files located at ETC-1. Microfilm drawings are stored on aperture cards which may be examined and copied on the self-service reader printer. In this collection a distinction is made between "active" and "historical" drawings, and the two are filed separately. The computer database operated by Ms. Bishop presently accesses only active drawings. However, most of the drawings relevant to 100-HR-1 are designated as historical. The computer search for drawings of 100-H Area facilities performed by Ms. Bishop therefore was not productive, and identified drawings primarily for the 105-H reactor building. Manual searching of the historical drawing files was tedious, because the files are arranged by drawing number only, but revealed many drawings relevant to the RFI/CMS.

2.1.7 TCPC Drawing Library

- Information: Engineering Drawings
- Contact: Denise Trenidad, 376-6434
- Description:

The microfilm engineering drawing collection at TCPC is the primary source for Hanford Site engineering drawings. Current drawing indexes, arranged by both drawing number and building number, are available at the library. The library is not equipped to perform individual computer searches, but relevant drawings can be quickly identified with the help of the building index. Microfilm drawings are on aperture cards and may be examined and printed with self-service reader printers. The drawing collection at TCPC overlaps with the one at ETC-1, but the collection at TCPC is more complete.

2.1.8 Waste Information Data System (WIDS)-450 Hills

- Information: Waste Site Data
- Contact: Nancy Homan, 376-5634
- Description:

The WIDS database contains information on twelve of the waste sites within the 100-HR-1 Operable Unit. A printout of the information for these sites was obtained and entered into the task database as Document MS-001. WIDS contains descriptions of site type, waste type, service dates, location coordinates, release potential, and other information for each of the twelve waste sites. Inventories of radionuclides and hazardous chemicals are provided for some of the sites.

2.1.9 Decontamination and Decommissioning (D&D)-379 Federal Building

- Information: D&D Documents and Photographs
- Contact: Dick Winship, 376-5768
  Ralph Wahlen, 376-4471
- Information:

Mr. Winship and Mr. Wahlen maintain an extensive collection of D&D information for the Hanford 100-Areas. These materials were examined during interviews with Mr. Winship and Mr. Wahlen (Interview IN-014 and IN-013, respectively). Although there is considerable information on the decommissioning of the 100-H Area, only a small amount was identified as having direct relevance to the task objectives. However, much of the information was considered to have possible future relevance and so was entered into the task database.

2.1.10 Hanford Technical Library-300 Area

- Information: Relevant Literature
- Contact: Chuck Sample, 376-0600
- Description:

The search for available literature relating to waste management practices and stack emissions at 100-H Area was conducted in large part at the Hanford Technical Library. This effort included a literature search performed by Mr. Sample, using the library's on-line bibliographic databases, which identified a number relevant titles. Most of the relevant documents identified were available directly from the library. The remainder were located and retrieved from other Hanford sources discussed in this section.

2.1.11 DOE Public Document Reading Room, Science Center, Federal Building

- Information: Documents
- Contact: Cindi Traub, 376-8583
- Description:

Several documents identified at the Hanford Technical Library were located and obtained from the Science Center reading room.

2.1.12 300 Area Central Files

- Information: Relevant Literature
- Contact: Kandy Jones, 376-5421
- Description:

Several relevant documents identified through the literature search were located and obtained from Central Files. Contacts with Ms. Jones were made only via telephone.

2.2 UNSUCCESSFUL SEARCHES

2.2.1 Records Holding Area (RHA)-712 Building

- Information: Reactor Operating Reports and Logs
- Contact: Flo Ungefug, 376-6584
- Description:

Bob Sudmann (WHC) informed ASI that classified reactor operating records and log books stored at the RHA may contain data on H Reactor stack emissions and other unusual occurrences at 100-H Area. These records are at present only available to personnel with Q-Level clearances (they are, however, in the process of being cleared), thus, no ASI employee was able to further investigate these records. Bill McJilton also made reference to these records in his interview (IN-008). A.D. Krug (WHC) reviewed some of the daily and monthly logs and indicated that they were of limited usefulness. They might indicate the dates when an event occurred, but provided no detail.

2.2.2 2750-E, 200 East Area

- Information: Decommissioning Engineering Record Files
- Contact: Ed Powers, 373-2774
- Description:

Ed Powers' group maintains the Decommissioning Engineering Record Files, which contain partial documentation of D&D program activities for the 100 Areas. The records in these files contain information primarily related to decommissioning designs, plans, budgets, and work approval. Little information is present describing D&D work actually performed, and no information relevant to the task objectives was obtained. The Decommissioning Engineering Record File Index for the 100-H Area was entered into the task database (Document DC-053).

2.2.3 Engineering Files-358 Federal Building

- Information: Engineering Drawings
- Contact: Marilyn Hubbard, 376-6669
- Description:

Engineering Files maintains the original films of all Hanford Site engineering drawings, including historical and superseded drawings. There is a collection of aperture cards of historical drawings organized by building number, but the collection is not indexed and a reader/printer is not available for public use. To view a drawing at Engineering Files a print must be ordered, which takes several days. No drawings were obtained from Engineering Files. The aperture card files in the drawing libraries at TCPC and ETC-1 were the primary sources for engineering drawings.

2.2.4 Sigma V, PNL

- Information: Hanford Inactive Site Surveillance (HISS) Information
- Contact: Roy Gephart, 376-2781
- Description:

The HISS database was developed during PNL's performance of preliminary assessment/site inspection (PA/SI) activities at the Hanford Site. Mr. Gephart is the HISS database custodian. Sections of the HISS files containing information on 100-H Area were examined and found to contain ground-level and high-altitude photographs and documents related to site history. The files did not contribute any new information relevant to the RFI/CMS at 100-HR-1. Mr. Gephart stated that upon completion of the PA/SI, PNL provided a complete copy of the HISS files to WHC.

2.2.5 Personnel Dosimetry-314 Federal Building

- Information: Personnel Dosimetry Records, Stack Emissions
- Contact: Matt Lyons, 376-7758
- Description:

Personnel dosimetry records from 1946 to present were examined for any unusual events, including H Reactor stack emissions, which may have occurred in the 100-H Area, and which may have impacted the environment. The only reports found were of skin contaminations within the 100-H Area. These were determined not to be relevant to the 100-HR-1 RFI/CMS. No data on stack emissions were obtained.

2.2.6 WHC Geosciences-450 Hills

- Information: Photographs from Basalt Waste Isolation Project (BWIP)
- Contact: Bob Peterson, 376-5858
- Description:

Remaining BWIP information is presently stored in boxes at 450 Hills. The information is not cataloged or sorted. Mr. Peterson was contacted to inquire if the BWIP files contained aerial photographs which may be relevant to 100-H Area. Mr. Peterson stated that BWIP files do contain aerial photographs, some going back several decades, others taken in the late 1970s when the project was active, but in his opinion these photographs would contribute little new information to the RFI/CMS. No BWIP photographs were obtained.

2.2.7 Administrative Record Files-345 Hills

- Information: Documents
- Contact: Brian Sprouse, 376-2530
- Description:

Mr. Sprouse has an index of documents which he is attempting to obtain for the Administrative Record. This index notes which documents have been obtained and where they are located within the files. Several of the documents identified during the literature search as being relevant to 100-HR-1 were listed on the index, but he did not have copies. No information was obtained from the Administrative Record area.

2.2.8 DOE Public Document Reading Room, Science Center, Federal Building

- Information: Event Fact Sheets (EFSs), Unusual Occurrence Reports (UORs)
- Contact: Cindi Traub, 376-8583
- Description:

The EFSs and UORs for United Nuclear, Inc., Rockwell Hanford Operations, Vitro Engineering, KEH, and WHC were searched for information concerning releases from 100-H Area which may have impacted the environment, including H Reactor stack emissions. These EFSs and UORs dated back to 1956. Only one UOR was found to contain information on the 100-H Area. No information relating to H Reactor stack emissions was obtained.

2.2.9 Engineering Files, 100-N Area

- Information: Engineering Drawings
- Contact: Vi Wheatley, 373-2036
- Description:

Ms. Wheatley maintains a collection of 100 Area design change files, which she searched for drawings relevant to 100-HR-1. This collection consists almost entirely of drawings for 100-N Area. There are a few drawings for 100-D and -K Areas, but none for 100-H Area. No drawings were obtained from this collection.

3.0 RESULTS AND ANALYSIS

The findings presented in this section are based on a preliminary analysis of the data collected under this task. Documents, drawings, photographs, and interviews are referenced throughout the discussions by unique "ASI-Number". For waste units focused on in Section 3.1, data sources are referenced also by their information numbers.

3.1 PRECISE LOCATIONS FOR WASTE UNITS SPECIFIED IN THE WORK PLAN

The focus of this task was on more precisely defining the locations of the following 100-HR-1 waste units: 1) the buried 100-H Area process effluent pipelines, 2) the 105-H pluto crib (116-H-4), 3) the 107-H sludge burial trench (116-H-7), and 4) the two septic systems within the operable unit boundary. Data pertaining to the locations and other features of these waste units are summarized in the following paragraphs.

It is anticipated that a need for further evaluation of the data on these focus units will arise as field investigations proceed under Phase I of the RFI (operable unit characterization). Therefore, to speed access to the data, a table of relevant data sources has been extracted from the task database and presented at the end of the discussion for each of these waste units.

3.1.1 100-H Area Process Effluent Pipelines

Maps in the Work Plan illustrate only the general location of the process effluent pipelines. Many sources of information collected under this task contain data on the 100-H Area pipelines, the most relevant of which are listed in Table 1. A good description of the 100-H Area effluent system is given in Document HW-74094 (MS-005). Drawing M-1904-H Sheet 4 (DR-021) illustrates the layout of the effluent system and gives the coordinates of expansion boxes located along the pipeline route. Drawing P-2092 (DR-004) provides design details for the expansion boxes. Results of radiological sampling of the effluent lines in the vicinity of the 107-H retention basin (116-H-7) are reported in Document UNI-946 (DC-003).

The H Reactor effluent system consists of two 60-inch diameter carbon steel pipelines that transported all reactor cooling water and decontamination wastes from the 105-H reactor building (118-H-6) to the center of the Columbia River (Document HW-74094, MS-005). Between the reactor building and the river, both lines tie into the intake of the 107-H retention basin (116-H-7). At the outlet of the retention basin the lines run to the process effluent outfall structure (116-H-5), and from the outfall structure to the center of the river. A single line constructed of 20-inch carbon steel pipe runs from the west side of the retention basin to the process effluent disposal trench (116-H-1) (Document HW-74094, MS-005). Photograph 4045 (PH-008) and 3745 (PH-011) show the above ground appearance of the reactor effluent system during the period of reactor operation. Photograph 42216-3CN (PH-021), taken in 1966, shows the area shortly after deactivation.

All lines in the H Reactor effluent system are located underground and are still in place at the present time. In the field, a number of above-ground features presently exist which help to indicate the location of the buried pipelines. Rows of radiation zone markers emplaced after reactor deactivation serve to locate the routes of the pipelines. Likewise, the above-ground parts of expansion boxes define the exact locations of certain points along the pipeline routes. Photograph 88081923-27CN (PH-038) shows the area underlain by the H Reactor effluent system as it appeared in 1988.

According to the RFI activity schedule in the Work Plan, if the precise location of the pipelines could not be determined under the source data compilation task, an electromagnetic (EM) induction survey (Work Plan Subtask 1c) is to be performed over the pipeline route to provide the necessary location information. The decision to forgo the EM survey will be made by WHC after further evaluation of the data collected under this task. The preliminary evaluation of the data conducted during assembly of this report suggests that it may be possible to perform a geodetic survey of the pipeline routes directly, without first performing an EM survey.

As discussed in the Work Plan, the pipelines at 100-H are known to have leaked in the past. This fact is well supported by interviews with former area personnel conducted under this task (Appendix C, Question 8). A remote camera inspection of the pipeline interior (Work Plan Subtask 1e) is planned in order to analyze the location and severity of these leaks. Bob Richards (Interview IN-012) has entered and performed an inspection of the effluent pipeline at the decommissioned 100-B Area. The inside surface of the 100-B Area pipe was found to be heavily oxidized and Mr. Richards reports that a 6-inch thick powdery deposit of scale and rust particles covered the pipeline floor. If the pipelines at 100-H Area contain a similar deposit, this may hinder or impede the travel of a remote camera device during the planned pipeline inspection.

Mr. Richards reports that another possible hinderance to the travel of a remote camera device may be the expansion boxes, which form a discontinuity in the pipelines. Drawing P-2092 (DR-004), which shows expansion box design details for the 100-H Area, may prove helpful in guiding the selection or design of a drive system for the remote camera device. Expansion boxes may provide the best access for inspection of the straight pipeline segments between the reactor building and the 107-H basin. For inspection of the pipeline segments closest to the reactor building, Dick Winship (Interview IN-014) suggests the cushion chamber inside the reactor building may provide better access than the expansion boxes.

Table 1.
Sources of Data on Location of 100-H Area Process Effluent Pipelines

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
DC-003	Document	UNI-946	"Radiological Characterization of the Retired 100 Areas", Dorian and Richards, 1978

Table 1. (Contd)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
MS-005	Document	HW-7409 Vol.3	"Hazards Summary Report Volume 3. Description of the 100-B, 100-C, 100-D, 100-DR, 100-F, and 100-H Production Reactor Plants", General Electric Hanford Works, 1963
DR-004	Drawing	P-2092	Expansion Boxes for 60" Process Sewers, 100-H Area
DR-009	Drawing	P-1220	Underground Services-Sewer and Water, Section 10
DR-010	Drawing	P-1221	Underground Services-Sewer and Water, Section 11
DR-021	Drawing	M-1904-H, SH.4	Sanitary/Process Lines
DR-051	Drawing	P-1685	Aerial Distribution, Section 10
DR-056	Drawing	P-4316	Underground Services-Sewers, Details of 60" Process Sewers
DR-057	Drawing	P-4335	Underground Services, Process Sewers-Manhole details, Sheet 1 of 3
DR-058	Drawing	P-4336	Underground Services, Process Sewers-Manhole Details, Sheet 2 of 3
DR-059	Drawing	P-4337	Underground Services, Process Sewers-Manhole Details, Sheet 3 of 3
DR-060	Drawing	P-4338	Underground Services-Miscellaneous
DR-075	Drawing	SK-1-1856	Effluent Line 105-H to 107-H (Gravity Flow)
PH-008	Photograph	4045, Box 2105	Black and white aerial view of 100-H Area from the south, June 1954
PH-011	Photograph	3745, Box 2105	Black and white aerial view of 100-H Area from the south, 5/15/56

Table 1. (Contd)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
PH-021	Photograph	42216-3CN	Black and white aerial view of 100-H Area from the southeast, 5/10/66
PH-035	Photograph	85030858-28CN	Color aerial view of 100-H Area from the east, 1985
PH-038	Photograph	88081923-27CN	Color aerial view of 100-H Area from the east, 8/19/88
PH-066	Photograph	1175, Box 2103	Black and white aerial view of construction of 107-H basin, 1/19/48
PH-067	Photograph	1182, Box 2103	Black and white aerial view of effluent line construction at junction with 107-H basin, 3/21/49

3.1.2 105-H Pluto Crib (116-H-4)

Maps in the Work Plan indicate the pluto crib was originally located southwest of and adjacent to the 1608-H pumping station (132-H-3). The crib location in the Work Plan is supported by virtually all the data obtained under this task. The most relevant sources of data for the location of the pluto crib are given in Table 2.

As summarized in the Work Plan, the 105-H pluto crib (116-H-4) was in service from 1950 to 1952 and was used for disposal of effluent from tubes containing ruptured fuel elements. In 1952 the crib was covered to grade with soil and marked with monuments. These monuments are not visible on any photographs obtained under this task. In 1960, the site was re-excavated and moved to the 118-H-5 burial ground (100-HR-2 Operable Unit) during construction of the 117-H confinement filter building. The area of the crib prior to construction of the 117-H building is shown in Photograph 4045 (PH-008), taken in 1954. Photograph 42216-3CN (PH-021), taken in 1966, shows the area after reactor deactivation.

Identical location coordinates for the crib (N95130, W39850) are given in Document HW-33305 (DC-009), HW-43121 (DC-034), and the WIDS database (MS-001). These coordinates agree with the crib location shown in the Work Plan. Document RL-REA-2514 (DC-006), HW-46715 (DC-011), and HW-83710 (DC-016) all contain maps illustrating the pluto crib in the same location as shown in the Work Plan.

Only two engineering drawings showing the location of the pluto crib were identified (H-3-57210 and H-1-4047), and both are in agreement with the Work Plan. Drawing H-1-4047 is available as a figure in Document HW-46715 (DC-011) and HW-43121 (DC-018), but is unavailable in the microfilm drawing libraries in ETC-1, TCPC, and 358 Federal Building. A full-size copy of Drawing H-1-4047

might be available in the drawing collection at the 165-KW Building. Drawing P-1220 (DR-009), which is listed in Document HW-33305 (DC-009) as the reference drawing for the 105-H pluto crib, was obtained and examined, and does not appear to show the location of the pluto crib.

Six of the former area personnel interviewed under this task claimed to have some knowledge of the original location of the pluto crib. Four of these six agree with the crib location in the Work Plan (Bob Richards, Bill McJilton, Ed Powers, and Ken Heid, Interview IN-012, IN-008, IN-011, and IN-004, respectively). Frank Owen (Interview IN-010), however, believes the crib was located closer to the 105-H reactor building (118-H-6) than shown in the Work Plan. Larry Denton (Interview IN-003) recalls that the crib was located outside the reactor building security fence, rather than inside as shown in the Work Plan. However, Mr. Denton feels Bob Richards' recollection of the site is probably more reliable than his own.

As discussed in the Work Plan, the exhumed 105-H pluto crib is one of the 100-HR-1 waste units included in the planned ground penetrating radar (GPR) survey (Work Plan Subtask 1d). Rubble from demolition work performed during decommissioning of facilities in close proximity to the pluto crib location may complicate interpretation of geophysical profiles of the pluto crib site. The 116-H reactor exhaust stack was demolished and buried in a trench located between the demolished 117-H filter building and the 1608-H effluent pumping station (132-H-3). Photographs 106669-63CN (PH-016) and 8503858-31CN (PH-044) show this area before and after demolition, respectively. The exact location of the stack burial trench is not documented, and it is possible that some disturbance of the pluto crib site may have occurred during demolition of the stack and the 1608-H pumping station.

Table 2.
Sources of Data on Location of 105-H Pluto Crib (116-H-4)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
MS-001	Document	N/A	Waste Information Data System printout of waste units in the 100-HR-1 Operable Unit, dated 7/13/89
MS-007	Drawing	H-3-57210,5/10	"100-H Area Waste Sites", photocopy of Figure B.4 from report on Preliminary Assessment/Site Inspection Activities on Inactive Waste Sites at Hanford
DC-006	Document	RL-REA-2514	"Underground Radioactive Materials in 100-H and F Plants", Herman, 1965, General Electric Company Hanford Works

Table 2. (Contd)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
DC-009	Document	HW-33305	"Tabulation of Radioactive Liquid Waste Disposal Sites", Clukey, 1954, General Electric Company Hanford Works
DC-011	Document	HW-46715	"Unconfined Underground Radioactive Waste and Contamination - 100 Areas", Heid, 1956, General Electric Company Hanford Works
DC-016	Document	HW-83710	"Control of Underground Radioactive Materials in Deactivated Reactor Areas", Koop, 1964, General Electric Company Hanford Works
DC-018	Document	HW-27337	"Unconfined Underground Radioactive Waste and Contamination", Ruppert, 1953, General Electric Company Hanford Works
DC-034	Document	HW-43121	"Tabulation of Liquid Waste Disposal Facilities", Clukey, 1956, General Electric Company Hanford Works Ruppert
PH-008	Photograph	4045, Box 2105	Black and white aerial view of 100-H Area from the south, June 1954
PH-011	Photograph	3745, Box 2105	Black and white aerial view of 100-H Area from the south, 5/15/56
PH-016	Photograph	106669-64CN	Color aerial view of 105-H reactor building, 3/16/83
PH-021	Photograph	42216-3CN	Black and white aerial view of 100-H Area from the southeast, 5/10/66
PH-044	Photograph	8503858-31CN	Color aerial view of 100-H Area from the southwest, 1985

3.1.3 107-H Sludge Burial Trench (116-H-7)

Sludge and waste removed from the 107-H (116-H-7) retention basin in the spring of 1953 were buried in a trench to the east of the basin (Document HW-46715, DC-011). The trench was originally covered to grade with 5 feet of soil. In May, 1965, following deactivation of the H Reactor, the location was excavated to a depth of approximately 6 feet to obtain fill for the 107-H basin. There was no indication of remaining radioactivity and consequently the site was removed from radiological controls (Document RL-REA-2514, DC-006).

Maps in the Work Plan show only an approximate size and location for the 107-H (116-H-7) sludge burial trench. Table 3 lists the sources of data on the location of the trench. Analysis of the data has uncovered two possibilities for the true location of the trench. One of these possible locations lies to the south of the location shown in the Work Plan, the other to the south and east. It was not possible to determine during this study which of the two possible locations is accurate. It is therefore recommended that the planned 100-HR-1 GPR survey (Work Plan Subtask 1d) be expanded to include these two locations.

Document HW-43121 (DC-034), HW-46715 (DC-011), RL-REA-2514 (DC-006), and HW-83710 (DC-016) all indicate that the trench was located farther south than indicated in the Work Plan. These documents place the trench east of the south end of the 107-H basin, not the middle of the basin as shown in the Work Plan. The only engineering design drawing identified which shows the size and location of the trench is Drawing H-1-4047, available as Sketch C in Document HW-46715 (DC-011). Trench locations shown on maps in Document RL-REA-2514 (DC-006) and HW-83710 (DC-016) are in general agreement with Drawing H-1-4047. Document HW-43121 (DC-034) gives physical dimensions and location coordinates (N95400, W38400) for the trench. These coordinates also appear to locate the trench opposite the southeast corner of the 107-H basin.

In contrast to the documents just discussed, Document UNI-946 (DC-003) and Document MS-003 indicate that the trench was not only located farther south than indicated in the Work Plan, but also farther east. Document MS-003 and Figure 2.4-3 in Document UNI-946 (DC-003) show the trench located adjacent to the patrol road along the bank of the river, not adjacent to the 107-H basin as indicated by the previously referenced sources.

Bob Richards (Interview IN-012), who is coauthor of Document UNI-946, stated that in 1975 the location of the sludge burial trench was identified during sample drilling by an obvious depression in the soil. At that time, a single hole (Sample Hole "C") was drilled through the trench. Location coordinates (N95398.04, W38276.17) and radioanalytical results from Hole "C" are given in Document UNI-946. Mr. Richards stated that the trench may not have been quite as large as shown in Document UNI-946.

In contrast to Mr. Richards' statements, the only other former area personnel interviewed who had any recollection of the sludge burial trench (Larry Denton and Frank Owen, Interview IN-003 and IN-010, respectively) both indicated that the trench location shown in the Work Plan is correct.

No photographs showing the open trench could be located. The trench was originally covered to grade with soil and marked with two non-standard monuments. The monuments are not apparent in Photograph 2045 (PH-070) taken in June 1953, but this photograph does show an unidentifiable object and a possible area of disturbance opposite the southeast corner of the 107-H basin. Neither the monuments nor any soil disturbance indicative of the trench location are readily identifiable in aerial photographs taken in 1954 (Photo 4045, PH-008) and 1956 (Photo 3748, PH-010; Photo 3745, PH-011).

After the trench location was excavated in 1965 and released from radiological control, no markers were left in place (Document RL-REA-2514, DC-006). Subsequent to excavation, much movement of heavy machinery associated with decommissioning activity has occurred in the area to the east of the 107-H basin. No evidence of the trench location is detectable on photographs taken in 1966 (Photo 42216-3CN, PH-021), 1983 (Photo 106669-65CN, PH-015), and 1985 (Photo 85030858-28CN, PH-035). There is no surface expression of the trench today.

Table 3.
Sources of Data on Location of 107-H Sludge Burial Trench (116-H-7)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
MS-003	Map	N/A	Map of 100-HR-1 & 100-HR-2 with location changes sketched by Bob Richards for some waste units, dated 8/25/89
DC-003	Document	UNI-946	"Radiological Characterization of the Retired 100 Areas", Dorian and Richards, 1978
DC-006	Document	RL-REA-2514	"Underground Radioactive Materials in 100-H and F Plants", Herman, 1965, General Electric Company Hanford Works
DC-011	Document	HW-46715	"Unconfined Underground Radioactive Waste and Contamination - 100 Areas", Heid, 1956, General Electric Company Hanford Works
DC-016	Document	HW-83710	"Control of Underground radioactive materials in deactivated Reactor Areas", Koop, 1964, General Electric Company Hanford Works
DC-034	Document	HW-43121	"Tabulation of Liquid Waste Disposal Facilities", Clukey, 1956, General Electric Company Hanford Works

Table 3. (Contd)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
PH-070	Photograph	2045, Box 2104	Black and white aerial view of 100-H Area form the southwest, 6/8/53
PH-008	Photograph	4045, Box 2105	Black and white aerial view of 100-H Area from the south, June 1954
PH-010	Photograph	3748, Box 2105	Black and white aerial view of 100-H Area from the east, 5/15/56
PH-011	Photograph	3745, Box 2105	Black and white aerial view of 100-H Area from the south, 5/15/56
PH-021	Photograph	42216-3CN	Black and white aerial view of 100-H Area from the southeast, 5/10/66
PH-015	Photograph	106669-65CN	Color aerial view of 107-H basin, 3/16/83
PH-035	Photograph	85030858-28CN	Color aerial view of 100-H Area from the east, 1985

3.1.4 1607-H-2 and 1607-H-4 Sanitary Septic Systems

As discussed in the Work Plan, sanitary sewage was collected from the various buildings within the 100-H Area and transported through sanitary sewer pipelines to four different septic systems. Two of these systems (1607-H-2 and 1607-H-4) are located in 100-HR-1. Both systems consist of a septic tank and associated tile field. Sources of data on the location of the two systems in 100-HR-1 are listed in Table 4.

The 1607-H-4 system, which is located adjacent to and received sanitary sewage from the 181-H river pumphouse, is incorrectly identified as 1607-H-3 in both the Work Plan and the WIDS database (Document MS-001). As shown on Drawing P-1679 (DR-048) and P-1211 (DR-005), 1607-H-4 is the correct designation for the septic system located along the river by the 181-H pumphouse. Drawing P-1230 (DR-012) shows that 1607-H-3 is the correct designation for the septic system located by the 1700-H guardhouse and patrol buildings (100-HR-2).

Location coordinates given in WIDS (MS-001) for the 1607-H-4 system are incorrect and place the system in the river. Correct location coordinates and the layout of the 1607-H-4 septic system are shown on Drawing P-1211 (DR-005), M-1904-H SH.1 (DR-018), and P-1679 (DR-048). The correct location coordinates for the 1607-H-4 septic tank are N98260, W40348 (M-1904-H SH.1, DR-018). Bob Richards (Interview

IN-012) recalls that the covers and access ports on all 100-Area septic tanks were originally above grade. Drawings and photographs support this fact. Design specifications given on Drawing P-2090 (DR-061) show that the covers on these steel reinforced concrete tanks had six inches of above-grade exposure. Photograph 678 (PH-046) shows the 1607-H-4 system under original construction. The 1607-H-4 tank cover and tile field enclosure are visible in Photograph 4045 (PH-008), taken in 1954. The condition of the site in 1988 is shown in Photograph 88081923-27CN (PH-038).

The 1607-H-2 system, which is located northwest of the 182-H reservoirs, received sanitary sewage from the 182-H, 183-H, 190-H, and several 1700-H office and maintenance service buildings. Location coordinates given in WIDS (MS-001) are incorrect and place the system in the river. Drawing P-1216 (DR-007), P-1041 (DR-013), M-1904-H SH.2 (DR-019), and M-1904-H SH.4 (DR-021) show the layout of the 1607-H-2 system, but do not specify exact location coordinates for the septic tank. Based on location coordinates given for nearby facilities on Drawing M-1904-H SH.4 (DR-021), the correct coordinates for the 1607-H-2 septic tank are estimated to be N97150, W39850. Photograph 715 (PH-050) shows the 1607-H-2 system under original construction. The 1607-H-2 tank cover and tile field enclosure are visible in Photograph 4045 (PH-008) and 42216-3CN (PH-021), taken in 1954 and 1966, respectively. The outline of the 1607-H-2 tile field is still clearly distinguishable on Photograph 88081923-27CN (PH-038) and 88081923-26CN (PH-040), taken in 1988.

As outlined in the Work Plan, the two septic tanks are included in the planned 100-HR-1 GPR survey (Work Plan Subtask 1d). The planned transects for the GPR survey shown in the Work Plan should be successful in determining the tank locations; however, it may now be possible to locate the tanks without the use of GPR. The data obtained under this task--location coordinates, system layouts, and physical dimensions-- may allow the tank locations to be determined directly, without first performing a geophysical profile.

According to the RFI activity schedule in the Work Plan, after the two septic tanks have been located and surveyed, sludge from inside the tanks is to be sampled and analyzed (Subtask 1f) to determine if hazardous substances were disposed down the drains which lead to the septic systems. Drawing P-1269 (DR-002) and P-2090 (DR-061) provide tank specifications--design details, physical dimensions, and cleanout port locations--which should assist in the performance of this subtask. According to most former area personnel interviewed under this task, it should be assumed that any materials used in the 100-H Area (i.e., chemicals, oils, etc.) were discharged to the septic system. Gerry Isaacson (Interview IN-006) states that it was common practice for showers and sinks in the 100-H Area change rooms to be used for personnel decontamination, and these drains lead to the sanitary sewers not the process sewers. The 1607-H-2 system, therefore, could potentially contain mixed wastes.

Evidence collected under this task indicates that the two septic systems in 100-HR-1 have undergone no alterations during D&D of the 100-H Area, and should therefore be open and intact at the present time. Document DC-007, which is the only document obtained that gives evidence of D&D activities at the 100-H Area involving septic tanks, reveals that the 1607-H-3 (100-HR-2) septic tank was demolished in 1974. No mention of the other three 100-H Area systems is made in

this or any other decommissioning document obtained.

It was revealed during interviews with Ed Powers and Larry Denton (Interview IN-011 and IN-003, respectively) that when the 1607-H-1 (100-HR-2) septic system was being reactivated in 1985 to service D&D trailers, the tank was discovered to have been backfilled with flyash. The ash was vacuumed out to the surface at that time and the system was successfully reactivated. Decommissioning personnel were very surprised by this discovery and were unable to determine when the backfilling occurred and who had authorized it. It is therefore recommended that contingency plans for the 1607-H-2 and 1607-H-4 septic tank sludge sampling subtask allow for the possibility of encountering tanks backfilled with flyash.

In addition, interviews with Bill McJilton (Interview IN-008) revealed that film badge processing liquids from the darkroom in the 1701-H gate house were disposed down the drain to the 1607-H-3 (100-HR-2) sanitary system. Therefore, the soils surrounding this demolished system could potentially be contaminated with these chemicals.

Table 4.
Sources of Data on Location of the
1607-H-2 and 1607-H-4 Sanitary Septic Systems

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
MS-001	Document	N/A	Waste Information Data System printout of waste units in the 100-HR-1 Operable Unit, dated 7/13/89
DC-007	Document	N/A	Hanford Site Housekeeping and Cleanup Program for 100-H Area, Final Report, from UNI to AEC, 7/23/74
DC-033	Document	N/A	"100-Areas Outside Services Lines", GE Nucleonics Dept., Hanford Works, Power Division
DR-002	Drawing	P-1269	Septic Tank and Tile Field Details
DR-005	Drawing	P-1211	Underground Services - Sewer and Water, Section 1
DR-007	Drawing	P-1216	Underground Services - Sewer and Water, Section 6
DR-013	Drawing	P-1041	100-H Area Layout
DR-018	Drawing	M-1904-H SH.1	Sanitary Sewer Lines
DR-019	Drawing	M-1904-H SH.2	Sanitary Sewer Lines

Table 4. (Contd)

ASI NUMBER	INFO TYPE	INFO NUMBER	TITLE/DESCRIPTION
DR-021	Drawing	M-1904-H SH.4	Sanitary/Process Lines
DR-048	Drawing	P-1679	Aerial Distribution Section 7
DR-050	Drawing	P-1682	Aerial Distribution Section 6
DR-061	Drawing	P-2090	Site Work 1607-H Outside Service Lines: Septic Tank Structural Plans
PH-008	Photograph	4045, Box 2105	Black and white aerial view of 100-H Area from the south, June 1954
PH-021	Photograph	42216-3CN	Black and white aerial view of 100-H Area from the southeast, 5/10/66
PH-038	Photograph	88081923-27CN	Color aerial view of 100-H Area from the east, 8/19/88
PH-040	Photograph	88081923-26CN	Color aerial view of 100-H Area from the north, 8/19/88
PH-046	Photograph	678, Box 2102	Black and white view of 181-H construction, 6/15/49
PH-050	Photograph	715, Box 2102	Black and white aerial view of 182-H construction, 6/27/49

3.2 H REACTOR STACK EMISSIONS

A search was conducted for additional information concerning radioactive air emission from the 116-H reactor exhaust stack. Only one new piece of information (Document HW-54636, DC-008) was obtained to supplement the report (ERDA-1538, DC-020) referenced in the Work Plan. Both reports document two incidents (May 1955 and November 1955) involving ruptured fuel slugs that caused radioactive materials to be released from the H Reactor stack. Document HW-54636 (DC-008) gives estimates of elements released and ground contamination patterns associated with each of these emissions. Classified reactor operating records and log books stored at the Records Holding Area (RHA) in the 712-Building (Section 2.2) may contain historical air quality data with additional information on releases from the H Reactor stack, but were not reviewed under this task. The above two incidents are the only H Reactor stack emissions recalled by any of the interviewees (Appendix C, Question 6).

3.3 POTENTIAL 100-HR-1 WASTE UNITS NOT IDENTIFIED IN THE WORK PLAN

3.3.1 1717-H "Hot Shop" and French Drain

Several former area personnel recall that the 1717-H combined shops contained a "Hot Shop" used for repairs to equipment contaminated with low levels of radioactivity (Appendix C, Question 15; Interview IN-003, IN-006, IN-008, IN-011, IN-012). Liquid decontamination wastes from the hot shop were discharged to a nearby French drain. The drain reportedly was located off the southeast corner of the 1717-H shops, but none of the interviewees is certain of its exact location. Drawings (DR-078 through DR-084), photographs (PH-008, PH-021, and PH-038), and documents collected under this task were reviewed but do not show the location of the drain. It is recommended that the planned GPR survey at 100-HR-1 be expanded to include the area between the former 1717-H shops and the 107-H retention basin in an effort to locate the French drain and possibly an underground propane storage tank (discussed next).

3.3.2 Underground Storage Tanks (USTs)

1717-H Combined Shops

Several of the drawings obtained to investigate the location of the 1717-H hot shop French drain (DR-078 through DR-080) indicate that an underground propane storage tank existed off the northeast corner of the 1717-H combined shops. No additional information on this tank could be obtained and it is not known if the tank has been removed. The recommended expansion of the GPR survey for locating the 1717-H hot shop French drain will also help to determine if this propane tank is still in place.

1716-H Auto Repair Shop

Mark Morton (WHC) is presently investigating USTs at the former location of the 1716-H auto repair shop as part of the site-wide UST removal program. It is not known at present how many USTs remain in place at this facility. Mr. Morton feels the 1716-H shop probably originally had two USTs, based on the fact that 1716-K and 1716-D shops had two tanks each (gasoline and waste oil), which have now been removed. Results of a GPR survey recently performed by PNL at 1716-H are inconclusive because of noise from buried demolition rubble. If the noise can't be filtered out, Mr. Morton will have another GPR survey performed.

190-H Building

A report summarizing results of certain 100-H Area D&D activities performed in 1974 (Document DC-007) states that two 12,000 gallon underground oil tanks adjacent to the 190-H building were removed and salvaged. The tanks reportedly supplied oil for the 184-H auxiliary boiler house. No additional information was obtained through the interview process regarding removal of these tanks (Appendix C, Question 16). Mark Morton (WHC) recalls hearing that sometime in the past two USTs were removed in the 100-C Area from near the 190-C building, but this was before he joined the program. Mr. Morton has no specific knowledge of the two tanks referenced in Document DC-007 but states that it is doubtful that any soil sampling would have occurred during a tank removal performed in 1974.

3.4 INFORMATION REQUESTED FOR RESPONSE TO ECOLOGY'S COMMENTS ON THE 100-HR-1 RFI/CMS WORK PLAN

The source data compilation task was expanded in an effort to obtain information which might assist in responding to Ecology's technical review comments on the Work Plan. Numbered items in this section correspond to the numbered comments in Document DC-019 ("WHC Dispositions to Ecology Comments: Draft 100-HR-1 RFI/CMS Project Plans", 10/31/89).

10. Interviewees were specifically asked about knowledge of holding times, post-reactor temperatures, and cooling water use rates (Appendix C, Question 12). Five of the interviewees have such knowledge (Interview IN-008, IN-010, IN-012, IN-013, IN-014), and two partially relevant documents were identified (DC-010, MS-005). Data in classified reactor operating log books in the RHA-712 Building (Section 2.2) may supply additional data, but was not reviewed. In summary, the maximum outlet temperature at a single tube was 100°C (95°C was typical), and the bulk cooling water temperature also could not exceed 100°C. As initially designed, the cooling water flow rate was approximately 32,000 gpm, and the retention time in the 107-H basin was approximately two hours. Project CG558 (production improvement), which occurred around 1952, doubled the flow rate and cut the holding time in half (approximately 70,000 gpm and one hour, respectively). The temperature of effluent exiting the 107-H basin after this reactor upgrade was approximately 60°C.

13. Interviewees were specifically asked about knowledge concerning the system used to detect fuel failures, such as response times and sensitivities and how the reactor coolant water was monitored (Appendix C, Question 5). Seven of the interviewees have such knowledge (Interview IN-003, IN-006, IN-008, IN-010, IN-012, IN-013, IN-014). Document MS-005 contains a description of the H Reactor fuel failure detection system. In summary, ruptures were detected by monitoring effluent water radioactivity at the crossheaders on the rear face of the reactor. The system originally used a gross beta and later a continuous gamma monitoring system. No information concerning sensitivities was obtained. Response times varied depending on the size of the rupture, but ruptures could normally be detected within an hour after they occurred. The time between detection and diversion of coolant apparently varied as well. Reactor shut down was immediate only for large failures. Small ruptures were often transient (so-called "droolers", "weepers", and "bleeders"). For these, coolant would not be diverted until a true failure occurred, which could take up to two to three days.

32. Interviewees were specifically asked about whether the use of the 105-DR reactor as an analog to the 105-H reactor is justifiable for purposes of estimating radionuclide inventory (Appendix C, Question 2). Seven of the interviewees believe the reactors were sufficiently similar in design and operating histories to justify the assumption (Interview IN-004, IN-008, IN-010, IN-011, IN-12, IN-013, IN-14). Two of the interviewees feel the assumption is not justifiable because special equipment and experimental projects carried out at the 105-H reactor made it significantly different from the 105-DR reactor (Interview IN-003, IN-006).

33. Interviewees were specifically asked about sources of data for uranium isotopes in the 105-H reactor and other Hanford reactors (Appendix C, Question 3). Bill Morgan (Interview IN-009) states that to his knowledge the 105-DR reactor and one of the two 100-K Area reactors are the only ones ever sampled and analyzed for isotopic uranium. This information is summarized in Document UNI-946 (DC-003), UNI-3714 (DC-036), and DOE-EIS-0119D ("Draft Environmental Impact Statement for Eight Surplus Production Reactors at Hanford", U.S. DOE, Richland, Washington, 1989).

36. See response to Comment #33.

49. See Section 3.2.

92. In the response to Comment #58, Document DC-019 states that the routine application of soil sterilants and herbicides at the 100-H Area to limit biological intrusion does not constitute a release under CERCLA or RCRA. Therefore, interviewees were asked about knowledge of 100-HR-1 facilities where these chemicals may have been stored, and where accidental releases of concentrated product may have occurred (Appendix C, Question 2). Several interviewees state that a chemical locker for storage of such chemicals existed at the 100-D Area, but not the 100-H Area. Interviewees were also asked about knowledge of disposal of potentially PCB-containing oils (Appendix C, Question 19). In summary, the interviewees report that waste oil was burned in the 100-H Area burning pit or drummed and disposed of on site in the solid waste burial grounds. Such oils were never routinely discharged to floor drains, but small quantities of these oils from spills and leaks likely were flushed into floor drains. Waste oils applied on roadways to inhibit dust came only from approved sources.

4.0 RECOMMENDED CHANGES TO THE 100-HR-1 RFI/CMS WORK PLAN

1. As discussed in Section 3.1.1, the Work Plan provides for elimination of the EM survey (Work Plan Subtask 1c) contingent upon results of the source data compilation task. A preliminary evaluation of data on the location of the buried H Reactor effluent pipelines suggests that it may be possible to perform a geodetic survey of the pipeline routes without first performing an EM survey. Consultation with the performing surveyor for KEH is recommended before making this decision. It may be unnecessary, given the wording for Subtask 1c in the Work Plan, to make a formal change to the Work Plan in the event the decision is made to forgo the EM survey.

2. It was not possible during the source data compilation task to determine which of two possible locations for the 107-H sludge burial trench is accurate. It is therefore recommended that the planned 100-HR-1 GPR survey (Work Plan Subtask 1d) be expanded to include three possible/suspected trench locations--the two additional locations discussed in Section 3.1.3 and the original location shown in the Work Plan.

3. As discussed in Section 3.1.4, it is recommended that an attempt be made to perform a geodetic survey of the 1607-H-2 and 1607-H-4 septic tanks without first performing a GPR survey. It is recommended that KEH be consulted to determine if the information obtained under this task--in particular location coordinates--will be sufficient to make possible a direct survey of the tank locations. If so, the planned 100-HR-1 GPR survey discussed in the Work Plan should be changed accordingly.

4. As discussed in Section 3.3.1 and 3.3.2, it is recommended that the planned 100-HR-1 GPR survey be expanded to include the area between the former location of the 1717-H combined shops and the 107-H retention basin in an effort to 1) locate the French drain that served the 1717-H "hot shop" and 2) determine if the 1717-H underground propane tank has been removed.

5. As discussed in Section 3.1.4, the correct designation for the septic system located along the river adjacent to the 181-H pumphouse is 1607-H-4, not 1607-H-3 as designated throughout the Work Plan. References in the Work Plan to 1607-H-3 should be changed to read 1606-H-4.

5.0 RECOMMENDED APPROACH TO FUTURE OPERABLE UNIT SOURCE DATA COMPILATION

1. It is recommended that source data compilation activities for future operable units concentrate effort on the localities in Section 2.1, where information searches were productive, and avoid the localities in Section 2.2, where searches were unproductive.

2. Advantage should be taken of the fact that the most fruitful localities for conducting information searches have been identified during performance of this task. It is recommended that consideration be given to collecting, centralizing, and indexing available historical materials for all the 100-Areas--and possibly the entire Hanford Site--prior to commencing source data compilation activities for future operable units. A single broad-based search of each locality would be much more efficient than repeated narrowly focused searches. Such a centralized index would pay for itself many times over by greatly reducing the time required for completing an operable unit source data compilation. Use of such an index could also be made during scoping efforts for operable unit work plans. This may help to reduce the number of required modifications to the work plans.

3. A preliminary copy of the database developed for this task has previously been provided to Rick McCain (WHC) to serve as a format model for the standardized scoping database he is developing. It is recommended that efforts to develop such a database be given priority, and that a standardized database format be developed as soon possible for use in source data compilation studies. Use of a standardized format will save time by eliminating development of numerous separate formats, and will also facilitate the eventual integration of data from all operable units.

THIS PAGE INTENTIONALLY
LEFT BLANK

APPENDIX A

100-HR-1 SOURCE DATA COMPILATION DATABASE

APPENDIX A

100-HR-1 SOURCE DATA COMPILATION DATABASE

Explanation of Database Structure

The software program used for compiling the source data compilation task database was Foxbase+, version 2.10. This database was tested and found to be fully compatible with dBASE 3+. Each record in the database contains information in up to ten different fields. An explanation of these fields is given below, followed by a printout report of the database. Note that several fields primarily designed for ASI internal use are not printed out in this report.

1. The first field in the database, titled "ASI NUMBER", is for ordering and arrangement of records. Each record is assigned a unique identification number containing an abbreviation, that indicates the form or type of information, followed by a sequential number. The abbreviations used are: "DC-, DR-, IN-, MS- or PH-", for "document, drawing, interview, miscellaneous, or photograph".

2. The second field, titled "TYPE", also indicates the type or form of information.

3. The third field, titled "INFORMATION NUMBER", gives a publication or reference number for the record, where available.

4. The fourth field, titled "SUBJECT OF INFORMATION", is a concise summary description of the record. The title, general subject, author(s), date, recipient, and other specific or notable information are included in this field.

5. The fifth field, titled "KEYWORD", indicates the topic(s) of information in the record, where applicable, and allows sorting of records into broad categories. Input choices for the keyword field are:

   - radioactive contaminants ("rad contam")
   - nonradioactive contaminants ("nonrad contam")
   - "releases"
   - decommissioning ("decom")
   - deactivation ("deact")
   - decontamination ("decont").

6. The sixth field, titled "PLACE ITEM LOCATED", gives the location, (building or person), where the record was obtained. These locations are described in Section 2.0 of the report.

7. The seventh field, titled "LOCATED AT ASI", is a "logical" field (i.e. yes/no, true/false) that indicates whether or not a copy of the record was obtained. A "T" means a copy was obtained and included in the task files. An "F" means the record was identified as being of possible future importance, but a copy was not obtained.

8. The eighth field, titled "FACILITY CODES", indicates which 100-H Area waste management units and facilities are covered in the record. This field allows the database to be sorted for records with information on a specific waste unit. To save space and data entry time, facilities were entered by codes as follows:

CODE	FACILITY
A	105-H REACTOR BUILDING (118-H-6)
B	100-H AREA PROCESS EFFLUENT PIPELINES
C	107-H EFFLUENT RETENTION BASIN (116-H-7)
D	PROCESS EFFLUENT OUTFALL STRUCTURE (116-H-5)
E	PROCESS EFFLUENT DISPOSAL TRENCH (116-H-1)
F	1608-H EFFLUENT PUMPING STATION (132-H-3)
G	1608-H EFFLUENT DISPOSAL TRENCH (116-H-2)
H	105-H DUMMY DECONTAMINATION FRENCH DRAIN (116-H-3)
I	105-H PLUTO CRIB (116-H-4)
J	117-H REACTOR CONFINEMENT SEAL PIT DRAINAGE CRIB (116-H-9)
K	116-H REACTOR EXHAUST STACK (132-H-1)
L	107-H SLUDGE BURIAL TRENCH (116-H-7)
M	SANITARY SEWER PIPELINES
N	1607-H-2 SANITARY SEPTIC SYSTEM
O	1607-H-4 SANITARY SEPTIC SYSTEM
P	183-H BASINS (116-H-6)
Q	100-H AREA UNDERGROUND UTILITIES
R	182-H RESERVOIRS
S	1716-H AUTO REPAIR SHOP
T	1717-H COMBINED SHOPS
U	PAINT SHOP
V	1715-H OIL STORAGE BUILDING
W	1907-H PUMP HOUSE
X	110-H BUILDING
Y	1734-H BUILDING
Z	1904-H BUILDING
AA	1906-H BUILDING
BB	1722-H BUILDING
CC	1719-H BUILDING
DD	1704-H BUILDING
EE	190-H BUILDING
FF	190-H ANNEX
GG	1703-H BUILDING
HH	1706-H BUILDING
II	1761-H BUILDING
JJ	1908-H BUILDING
KK	105-H FUEL STORAGE BASINS
ZZ	100-H General

9. The ninth field, titled "DATE ENTERED", indicates the date the particular record was entered into the database, and was used primarily for ASI internal tracking and sorting purposes during database compilation.

10. The tenth and final field, titled "FILE RM. LOCATION", was also for ASI

internal use, and indicates where in the ASI Source Data Compilation Task holding room the record was temporarily located before completion of the task.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-001	DOCUMENT	RAL-6852	183-H SOLAR EVAPORATION BASINS, 84/09, RCRA GROUNDWATER MONITORING PROJECTS FOR HANFORD FACILITIES: ANNUAL PROGRESS REPORT FOR 1988, FRULAND, R. M. AND LUNDGREN, R. E. (PNL)	RELEASES	HANFORD TECHNICAL LIBRARY	P	.T.
DC-002	DOCUMENT	DOE/RL 88-36	100-HR-3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY PROJECT PLAN FOR THE 100-HR-3 OPERABLE UNIT (DRAFT), DATED 03/89		WHC	100-HR-3	.T.
DC-003	DOCUMENT	UNI-946	RADIOLOGICAL CHARACTERIZATION OF THE RETIRED 100 AREAS, DATED 05/78, AUTHORS DORIAN, J. J. AND RICHARDS, V. R. (UNI)	RAD CONTAM	HANFORD TECHNICAL LIBRARY	ZZ	.T.
DC-004	DOCUMENT	DOE/RL 88-35	DRAFT RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATION/CORRECTIVE MEASURES STUDY WORK PLAN FOR THE 100-HR-1 OPERABLE UNIT HANFORD SITE, RICHLAND, WASHINGTON, 06/89		WHC	ZZ	.T.
DC-005	DOCUMENT		PROJECT MANAGEMENT PLAN, RCRA FACILITY INVESTIGATION/CORRECTIVE MEASURES STUDY FOR OPERABLE UNIT 100-HR-1, REVISION 0		ASI	ZZ	.T.
DC-006	DOCUMENT	RL-REA-2514	UNDERGROUND RADIOACTIVE MATERIALS IN 100-H AND 100-F PLANTS, AUTHOR G. HERMAN JR., UNCLASSIFIED GE REPORT TO AEC DATED 10/29/65, PORTIONS ILLEGIBLE, APPENDIX A REFERENCES 100-H AREA FACILITIES	RAD CONTAM	HANFORD TECHNICAL LIBRARY	C,G,Z,A,J,L, I	.T.
DC-007	DOCUMENT		HANFORD SITE HOUSEKEEPING AND CLEANUP PROGRAM FOR 100-H AREA FINAL REPORT, FROM UNI TO AEC, DATED 7/23/74.	DEACT,DECON	HANFORD TECHNICAL LIBRARY	AA,EE,I,R,P,	.T.
DC-008	DOCUMENT	HW-54636	SUMMARY OF ENVIRONMENTAL CONTAMINATION INCIDENTS AT HANFORD FROM 1952-1957, GE TO AEC, AUTHORS: J.M.SELBY AND J.K. SOLDAT, DATED 1/25/58, (STACK EMISSIONS)	RELEASES	HANFORD TECHNICAL LIBRARY	A,L,E,K	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-809	DOCUMENT	HW-33365	TABULATION OF RADIOACTIVE LIQUID WASTE DISPOSAL FACILITITES, GE, AUTHOR: H.V. CLUKEY, DATED 10/8/54	RAD CONTAM	HANFORD TECHNICAL LIBRARY	I,E,G	.T.
DC-810	DOCUMENT	HW-77176	STATUS OF THE GROUNDWATER BENEATH HANFORD REACTOR AREAS JANUARY, 1962 TO JANUARY, 1963, GE FOR AEC, AUTHOR: DONALD J.BROWN	RELEASES	HANFORD TECHNICAL LIBRARY	C,ZZ	.T.
DC-811	DOCUMENT	HW-46715	UNCONFINED UNDERGROUND RADIOACTIVE WASTE AND CONTAMINATIONS - 100 AREAS, AUTHOR: K.R.REID, SUPPLEMENT TO HW-27337,	RAD CONTAM, RELEASES	HANFORD TECHNICAL LIBRARY	I,C,L,E,G	.T.
DC-812	DOCUMENT	PNM-538	HANFORD RADIOACTIVE WASTE MANAGEMENT PLANS, AUGUST, 1972, AEC, PREPARED BY ATLANTIC RICHFIELD HANFORD, BATTELLE-NW, DOUGLAS UNI, WHC COMPILED: N.T.KARAGIANES	RAD CONTAM	HANFORD TECHNICAL LIBRARY	ZZ,A,K,C	.T.
DC-813	DOCUMENT	DOE/RL 88-30	HANFORD SITE WASTE MANAGEMENT UNITS REPORT, WHC - DEFENSE WASTE ENGRG., DATED MAY 1989, DOE, PARTIAL DOCUMENT - CONTENTS REFER ONLY TO 100-HR-1 OPERABLE UNIT	RAD CONTAM,NONRAD CONTAM,RELEASES	HANFORD TECHNICAL LIBRARY	E,G,H,I,D,P, C,J,M,O	.T.
DC-814	DOCUMENT		ESTIMATE OF MERCURY RELEASED TO 126-D-1 (100-D) POND, FROM M.J. LAUTERBACH AND K.A. GANO; 100/1100 ENV.ENGRG AND 100 AREAS ENVIR. PROTECT. (RESPECTIVELY), WHC INTERNAL MEMO TO S.M. PRICE, DATED 1/4/90	NONRAD CONTAM	A.KRUG, WHC	100-D	.T.
DC-815	DOCUMENT	DUN-3963	UNDERGROUND RADIOACTIVE MATERIALS AT 100-D PLANT, UNI FOR DOE, AUTHOR: W.J. TATUM	RAD CONTAM	HANFORD TECHNICAL LIBRARY	100-D	.T.
DC-816	DOCUMENT	HW-83716	CONTROL OF UNDERGROUND RADIOACTIVE MATERIALS IN DEACTIVATED REACTOR AREAS, GE, AUTHOR: W.H. KOOP, DATED 10/7/64 (2 COPIES ON	RAD CONTAM	HANFORD TECHNICAL	L,C,G,I,J,B, E,H	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
			FILE)		LIBRARY		
DC-017	DOCUMENT	HW-84619	SUMMARY OF ENVIRONMENTAL CONTAMINATION INCIDENTS AT HANFORD, 1958-1964, GE, AUTHOR: G.E. BACKMAN, DATED 4/12/65, SUPPLEMENT TO HW-54636 (YEARS '52-'57), NO 100-H INFORMATION	RELEASES,RAD CONTAM	HANFORD TECHNICAL LIBRARY		.T.
DC-018	DOCUMENT	HW-27337	UNCONFINED UNDERGROUND RADIOACTIVE WASTE AND CONTAMINATION, AUTHOR: H.G. RUPPERT, DATED 1/29/53, 100 AREA RAD. GROUND DISCHARGE, BOTH PLANNED AND UNPLANNED,100-B,100-D,100-H,100-F	RAD CONTAM, RELEASES	HANFORD TECHNICAL LIBRARY	I,E	.T.
DC-019	DOCUMENT		DISPOSITIONS TO ECOLOGY COMMENTS: DRAFT 100-HR-1 RFI/CMS PROJECT PLANS, DATED 10/31/89, CERTAIN SUBJECTS DEFINED AS BEING ACCESSIBLE DUE TO "EXPANDED SOURCE DATA COMPILATION ACTIVITY"		A.KRUG, WHC		.T.
DC-020	DOCUMENT	ERDA-1538	WASTE MANAGEMENT OPERATIONS, FINAL ENVIRONMENTAL STATEMENT - HANFORD RES. VOL.2 OF 2 - APPENDIXES, US ERDA, DATED 12/75.	RAD CONTAM, NONRAD CONTAM, RELEASES	ASI REFERENCE FILES	K,D,E,G,H,I, C,P,ZZ	.T.
DC-021	DOCUMENT		HANFORD SURVEY REPORT ON HAZARDS, LTR FROM UNI TO AEC, DATED 3/14/74	DECOM	165-KW BLDG	AA	.T.
DC-022	DOCUMENT		LTR TO ATLANTIC RICHFIELD HANFORD FROM UNI RE: PLANTWIDE SURVEY OF POTENTIALLY HAZARDOUS CONDITIONS,. DATED 5/10/74.	RAD CONTAM, DECONT	165-KW BLDG	ZZ,C	.T.
DC-023	DOCUMENT		LTR TO AEC FROM UNI, LIST OF ALL FACILITIES IN 100 AREAS AND UNI FACILITIES IN 300 AREA, DATED 1/9/74.	RAD CONTAM, DECOM	165-KW BLDG	ZZ	.T.
DC-024	DOCUMENT	HW-84269	REACTOR PLANT DEACTIVATION DECONTAMINATION GUIDE, BY GE, DATED 9/25/64, AUTHOR: H.C. COPELAND	DEACT,DECON	165-KW BLDG	KK,C	.T.
DC-025			RECORD DELETED (REPLICATION OF ANOTHER)				.F.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-026	DOCUMENT	RL-REA-2689	SUMMARY REPORT-REACTOR PLANT DEACTIVATION TEST,105-F AND H STORAGE BASIN LAYAWAY, GE, AUTHORS: H.C. COPELAND,F.E. OWEN, DATED 10/29/65	DEACT, DECON, DECON	165-KW BLDG	KK	.T.
DC-027	DOCUMENT	RL-REA-2581	RADIOLOGICAL STATUS REPORT, DEACTIVATION STATUS - H PLANT, GE, AUTHOR: G.HERMAN,JR., DATED 11/7/65.	RAD CONTAM, DEAC, DECON	165-KW BLDG	ZZ	.F.
DC-028	DOCUMENT	RL-REA-2536	REACTOR PLANT DEACTIVATION TEST - 105-F AND H STORAGE BASIN LAYAWAY	DEACT, DECON, DECON	165-KW BLDG	C	.T.
DC-029	DOCUMENT	107-3-75	REACTOR PLANT DEACTIVATION: CONTAMINATION CONTROL - WATER RETENTION BASIN, AUTHORS: C.E.LANGE AND R.A.WINSHIP, DATED 4/2/65	DEACT, DECON	165-KW BLDG	C	.T.
DC-030	DOCUMENT	190-2-14 (7)	REACTOR PLANT DEACTIVATION SYSTEM INSTRUCTIONS: SODIUM DICHROMATE SYSTEM, AUTHOR: E.H.RANDA, DATED 3/11/65	DEACT	165-KW BLDG	EE	.T.
DC-031	DOCUMENT	4175	REACTOR PLANT DEACTIVATION - DETAIL PROCEDURE: GASOLINE DISPENSING STATIONS, AUTHOR: E.R.MYERS, DATED 9/16/64.	DEACT	165-KW BLDG	S	.T.
DC-032	DOCUMENT	RL-REA-2606	REACTOR PLANT DEACTIVATION HISTORY 100.DR, H AND F AREAS, GE, AUTHORS: W.R.WINDSHEIMER, H.C.COPELAND, D.C.GREENWALGH, A.W.HERVIN, DATED 10/25/65	DEACT, DECON	165-KW BLDG	C,A,D,KK	.T.
DC-033	DOCUMENT		GE NUCLEONICS DEPT., HANFORD WORKS, POWER DIVISION: 100-AREAS - OUTSIDE SERVICE LINES		2750-E, S.KISER (WHC)	B,W,N,O,Q	.T.
DC-034	DOCUMENT	HW-43121	TABULATION OF RADIOACTIVE LIQUID WASTE DISPOAL FACILITIES, GE, AUTHORH.Y.CLUKEY, DATED 5/10/56,	RAD CONTAM	HANFORD TECHNICAL LIBRARY	I,E,L,G	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-035	DOCUMENT	GEN-26434-100	CATALOG OF HANFORD BLDGS AND FACILITIES - 100 AREAS, AUTHORS: AEC-GE STUDY GROUP (FOR THE ECONOMIC DEVELOPMENT OF RICHLAND), DATED 4/64		SCIENCE CTR. READING RM.	ZZ	.T.
DC-036	DOCUMENT	UNI-3714 REV1	RADIONUCLIDE INVENTORY AND SOURCE TERMS FOR THE SURPLUS PRODUCTION REACTORS AT HANFORD, AUTHOR/EDITORS: R.L.MILLER AND J.M.STEFFES, DATED: 4/1/87.	RAD CONTAM	HANFORD TECHNICAL LIBARY	A,KK	.T.
DC-037	DOCUMENT	UNI-681	HANFORD SITE CLEANUP PROGRAM PLAN FY'77, AUTHORS: J.F.NEMEC AND R.K. WAHLEN, DATED 10/15/76, OBTAINED FROM INTERVIEW WITH DICK WINSHIP		381 FED. WINSHIP (WHC)		.F.
DC-038	DOCUMENT		HANFORD SITE CLEANUP PROGRAM PICTORIAL REVIEW, FY'77, PREPARED BY: R.K.WAHLEN, FROM WINSHIP INTERVIEW	DECON, DECONT	381 FED. WINSHIP (WHC)	ZZ	.F.
DC-039	DOCUMENT	UNI-1486	HANFORD SITE CLEANUP PROGRAM PLAN, FY'79, AUTHORS: R.K.WAHLEN AND J.L.GOODENOW, DATED 3/11/88, FROM WINSHIP INTERVIEW	DECON, DECONT	381 FED. WINSHIP (WHC)	ZZ	.F.
DC-040	DOCUMENT	UNI-1866	HANFORD SITE CLEANUP PROGRAM PLAN, R.K.WAHLEN, DATED 9/81, FROM WINSHIP INTERVIEW	DECON, DECONT	381 FED. WINSHIP (WHC)	ZZ	.F.
DC-041	DOCUMENT	UNI-4433	DESIGNATION NUMBERS FOR UNCONTROLLED WASTE SITES IN THE 100 AREAS, K.A.GANO AND J.A.HALL, 6/3/87, FROM WINSHIP INTERVIEW	DECON	381 FED. WINSHIP (WHC)	ZZ	.F.
DC-042	DOCUMENT	UNI-2533	HANFORD 100 AREA LONG-RANGE DECOMMISSIONING PLAN, 9/1/84. CONTAINS INFO ON BACKFILLING OF 105-H FUEL STORAGE BASIN W/ SOIL. FROM WINSHIP INTERVIEW	DECON	381 FED. WINSHIP (WHC)	ZZ,KK	.F.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-843	DOCUMENT	WHC-EP-0067	ESTIMATES OF SOLID WASTE BURIED IN 100 AREA BURIAL GROUNDS, AUTHORS: A.L.MILLER AND R.K.WAHLEN, 10/87	DECON, DECONT	381 FED. WINSHIP (WHC)	ZZ	.I.
DC-844	DOCUMENT	DOE-EIS-0119D	DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR EIGHT SURPLUS PRODUCTION REACTORS AT HANFORD, 1989, FROM WINSHIP INTERVIEW	DECON, DECONT	381 FED. WINSHIP (WHC)	ZZ	.F.
DC-845	DOCUMENT	UNI-2226	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100 AREAS - FY'82, AUTHOR: E.M.GREAGER, DATED 12/14/82		HANFORD TECHNICAL LIBRARY	ZZ	.I.
DC-846	DOCUMENT	UNI-2648	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100 AREAS - FY'83, AUTHOR: E.M.GREAGER, DATED: 10/31/83	RAD CONTAM	HANFORD TECHNICAL LIBRARY	ZZ	.I.
DC-847	DOCUMENT	UNI-1849	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100 AREAS - FY'81, AUTHOR: E.M.GREAGER, DATED 10/29/81	RAD CONTAM	HANFORD TECHNICAL LIBRARY	ZZ	.I.
DC-848	DOCUMENT	UNI-3760	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100 AREAS - FY'85, AUTHOR: I.D.JACQUES, DATED 2/27/86	RAD CONTAM, DECON	HANFORD TECHNICAL LIBRARY	ZZ,P,C	.I.
DC-849	DOCUMENT	UNI-4065	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100 AREAS - FY'86 AUTHOR: I.D.JACQUES, DATED 1/12/87	RAD CONTAM, NONRAD CONTAM, DECON	HANFORD TECHNICAL LIBRARY	A,B,C,F	.I.
DC-850	DOCUMENT	WHC-EP-0161	WHC ENVIRONMENTAL SURVEILLANCE ANNUAL REPORT FOR THE 100 AREAS - CALENDAR YEAR 1987, AUTHOR: C.J.PERKINS, (PUBL.)DATED JULY 1988	RAD CONTAM, DECON	HANFORD TECHNICAL LIBRARY	ZZ,P	.I.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DC-851	DOCUMENT	RL-REA-21	REACTOR PLANT DEACTIVATION GENERAL RADIATION INVESTIGATION, AUTHOR: H.C.COPELAND, DATED: 10/15/64, BY GE	DEACT,DECONT	300 AREA CENTRAL FILES	A,ZZ	.T.
DC-852	DOCUMENT	RL-REA-99	REACTOR DEACTIVATION - CONTAMINATION CONTROL, AUTHOR: H.F.JENSEN, DATED 12-1-64, BY GE	DEACT,DECONT	300 AREA CENTRAL FILES	C,ZZ	.T.
DC-853	DOCUMENT		RECORD FILE INDEX FOR DECOMMISSIONING ENGINEERING, REV.10/31/89,	DECOM,DECONT	2750-E, E.POWERS (WHC)	A,KK,B,C,K,P	.T.
DC-854	DOCUMENT		HANFORD SITE CLEANUP PROGRAM FOR FY-77, LETTER FROM A.R.MAGUIRE OF UNI TO US ERDA, DATED 9/9/76	DECOM,DECONT	165-KW BLDG, S.KISER (WHC)	C,T,EE,FF	.T.
DC-855	DOCUMENT	RL-REA-2717	REACTOR PLANT DEACTIVATION POSTSHUTDOWN SURVEILLANCE AND MAINTENANCE, AUTHORS: W.W.WINSHEIMER,H.C.COPELAND,A.W.HERVIN, BY GE, DATED 10/26/65	DEACT	165-KW BLDG, S.KISER (WHC)	A,Z,AA,KK	.T.
DC-856	DOCUMENT		PROJECT READINESS REPORT FOR DECOMMISSIONING OF 107-H RETENTION BASIN, VARIOUS DATES, UNI,	DECOM	100-K TRAILER	C	.T.
DC-857	DOCUMENT	UNI-3869	UNC ENVIRONMENTAL SURVEILLANCE REPORT FOR THE 100-AREAS -- FY 1984, AUTHOR: E.W.GREAGER, DATED 12/21/84, UNI FOR DOE	RELEASES	712 BLDG	ZZ	.T.
DC-858	DOCUMENT	UNI-2898 REV.0	DECOMMISSIONING CONCEPTUAL STUDY: IN SITU DECOMMISSIONING OF EIGHT 105 REACTOR BUILDINGS IN THE 100-AREAS, BY KEH FOR UNI (P.W.GRIFFIN), DATED 3/87	DECOM	712 BLDG	A	.T.
DC-859	DOCUMENT	PNL-6125	HISTORICAL REVIEW OF PERSONNEL DOSIMETRY DEVELOPMENT AND ITS USE	RAD CONTAM	R.WAHLEN		.F.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
			IN RADIATION PROTECTION PROGRAMS AT HANFORD, AUTHOR: R.H. WILSON, DATED: 1987		INTERVIEW		
DC-060	DOCUMENT		INDEX GIVING PHOTO NEGATIVE NUMBERS OF AERIAL PHOTOGRAPHY TAKEN OF VARIOUS HANFORD FACILITIES ON 8/2/88.		2750-E, E.POWERS (WHC)	ZZ	.T.
DR-001	DWG	P-1669	POWER DISTRIBUTION PLAN - PRIMARY, APPROVAL DATE 01/49		ETC-1	ZZ	.T.
DR-002	DWG	P-1269	SEPTIC TANK AND TILE FIELD DETAILS, APPROVAL DATE 07/48		A.KRUG (WHC) AND ETC-1	M,O,M,ZZ	.T.
DR-003	DWG	P-2898	CONCRETE ENCASEMENT AND EMBEDMENT FOR INSTALLATION OF CONCRETE PIPES, APPROVAL DATE 02/49		ETC-1	ZZ	.T.
DR-004	DWG	P-2892	EXPANSION BOXES FOR PROCESS SEWERS		ETC-1	B,ZZ	.T.
DR-005	DWG	P-1211	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 1, APPROVAL DATE 09/48		ETC-1	O,O,M,ZZ	.T.
DR-006	DWG	P-1215	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 5		ETC-1	B,M,ZZ	.T.
DR-007	DWG	P-1216	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 6, APPROVAL DATE 11/48		ETC-1	B,M,M,ZZ	.T.
DR-008	DWG	P-1217	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 7, APPROVAL DATE 11/48		ETC-1	B,M,ZZ	.T.
DR-009	DWG	P-1220	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 10		ETC-1	B,M,ZZ	.T.
DR-010	DWG	P-1221	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 11		ETC-1	B,M,ZZ	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DR-811	DWG	P-1225	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 15		ETC-1	W,ZZ	.T.
DR-812	DWG	P-1230	UNDERGROUND SERVICES - SEWER AND WATER, SECTION 20		ETC-1	W,ZZ	.T.
DR-813	DWG	P-1841	100-H AREA LAYOUT		ETC-1	ZZ,W	.T.
DR-814	DWG	P-1909,SH.9	100-H AREA PLOT PLAN		ETC-1	ZZ	.T.
DR-815	DWG	H-1000-H,SH.1	OVERHEAD LINES - STEAM		ETC-1	ZZ	.T.
DR-816	DWG	H-1000-H,SH.3	OVERHEAD LINES - STEAM		ETC-1	ZZ	.T.
DR-817	DWG	H-1000-H,SH.4	OVERHEAD LINES - STEAM		ETC-1	ZZ	.T.
DR-818	DWG	H-1984-H,SH.1	SANITARY SEWER LINES		ETC-1	W,ZZ	.T.
DR-819	DWG	H-1984-H,SH.2	SANITARY SEWER LINES		ETC-1	W,ZZ,W	.T.
DR-820	DWG	H-1984-H,SH.3	SANITARY/PROCESS LINES		ETC-1	B,W,ZZ	.T.
DR-821	DWG	H-1984-H,SH.4	SANITARY/PROCESS LINES		ETC-1	B,W,ZZ	.T.
DR-822	DWG	H-1984-H,SH.6	SANITARY SEWER LINES		ETC-1	W,ZZ,W	.T.
DR-823	DWG	H-1981-H,SH.1	OUTSIDE LINES - WATER		ETC-1	ZZ	.T.
DR-824	DWG	H-1981-H,SH.2	OUTSIDE LINES - WATER		ETC-1	ZZ	.T.
DR-825	DWG	H-1981-H,SH.3	OUTSIDE LINES - WATER		ETC-1	ZZ	.T.
DR-826	DWG	H-1981-H,SH.4	OUTSIDE LINES - WATER		ETC-1	ZZ	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DR-027	DWG	M-1981-H,SH.6	OUTSIDE LINES - WATER		ETC-1	ZZ	.T.
DR-028	DWG	M-1583-H,SH.1	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-029	DWG	M-1583-H,SH.2	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-030	DWG	M-1583-H,SH.3	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-031	DWG	M-1583-H,SH.4	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-032	DWG	M-1583-H,SH.5	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-033	DWG	M-1583-H,SH.6	OUTSIDE ELECTRICAL LINES		ETC-1	ZZ	.T.
DR-034	DWG	M-1680-H,SH.1	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-035	DWG	M-1680-H,SH.2	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-036	DWG	M-1680-H,SH.3	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-037	DWG	M-1680-H,SH.4	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-038	DWG	M-1680-H,SH.5	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-039	DWG	H-1-16254	PLOT PLAN - CHEMICAL ADDITION STORAGE TANKS		ETC-1	EE	.T.
DR-040	DWG	H-1-15397	VICINITY MAP - 100-H TERMINATED BURIAL SITES		ETC-1	G,B,Z,C,A,ZZ	.T.
DR-041	DWG	H-1-13484	BURIAL GROUND 100-H AREA		ETC-1	ZZ	.T.
DR-042	DWG	H-1-14732	PERMANENT BURIAL GROUNDS PLANS AND DETAILS		ETC-1	ZZ	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DR-843	DWG	UNKNOWN	100-H AREA SOIL TEST LOCATIONS		ETC-1	ZZ	.T.
DR-844	DWG	W-1606-H,SH.6	TOPOGRAPHIC MAP		ETC-1	ZZ	.T.
DR-845	DWG	P-1042	100-H AREA WATER SUPPLY SYSTEM DIAGRAM, MARCH 31, 1949		ETC-1	A,EE,P,R	.T.
DR-846	DWG	P-1238	PROCESS WATER TUNNEL BETWEEN BLDG. 190-H AND 105-H		ETC-1	A,EE,Q	.T.
DR-847	DWG	P-1675	ELECTRICAL UNDERGROUND PLAN		ETC-1	ZZ,Q	.T.
DR-848	DWG	P-1679	AERIAL DISTRIBUTION SECTION 7		ETC-1	Q,M	.T.
DR-849	DWG	P-1681	AERIAL DISTRIBUTION SECTION 5		ETC-1	R,P	.T.
DR-850	DWG	P-1682	AERIAL DISTRIBUTION SECTION 6		ETC-1	B,R,M,N,Q	.T.
DR-851	DWG	P-1685	AERIAL DISTRIBUTION SECTION 10		ETC-1	D,P,EE,FF,A, V,Y,S,U,T,AA ,JJ,C,	.T.
DR-852	DWG	P-1686	AERIAL DISTRIBUTION SECTION 11		ETC-1	A,F,X,Q,EE,F F,P,B	.T.
DR-853	DWG	P-1799	INDEX 105-H BLDG.		ETC-1	A	.T.
DR-854	DWG	P-3475	BURIAL TRENCH CROSS SECTION 100-H AREA, MOSTLY 100-HR-2 AND SOLID WASTE		ETC-1	ZZ	.T.
DR-855	DWG	P-3481	100-H AREA MAP KEY		ETC-1	ZZ	.T.
DR-856	DWG	P-4316	UNDERGROUND SERVICES - SEWERS, DETAILS OF 60-IN. PROCESS SEWERS		ETC-1	B	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
OR-857	DWG	P-4335	UNDERGROUND SERVICES, PROCESS SEWERS-MANHOLE DETAILS, SHT.1 OF 3		ETC-1	B	.T.
OR-858	DWG	P-4336	UNDERGROUND SERVICES, PROCESS SEWERS-MANHOLE DETAILS, SHT.2 OF 3		ETC-1	B	.T.
OR-859	DWG	P-4337	UNDERGROUND SERVICES - PROCESS SEWERS-MANHOLE DETAILS, SHT.3 OF 3		ETC-1	B	.T.
OR-860	DWG	P-4338	UNDERGROUND SERVICES - MISC.		ETC-1	B,Q	.T.
OR-861	DWG	2-2898	SITE WORK 1607-H OUTSIDE SERVICE LINES; SEPTIC TANK STRUCTURAL PLANS,DATED: JULY '48.		TCPC MICROFILM LIBRARY	M,O	.T.
OR-862	DWG	SP-10676	STORAGE TANK, OF UNKNOWN USAGE, LOOKS LIKE USED FOR LIQUID STORAGE ABOVE GROUND		TCPC MF LIB.	Q,S,U,V,EE (?)	.T.
OR-863	DWG	SP-10657	RETENTION TANK OF UNKNOWN USAGE		TCPC MF LIB	Q,S,U,V,EE, (?)	.T.
OR-864	DWG	P-1896	REPAIR SHOP FLOOR PLAN		TCPC MF LIB.	S	.T.
OR-865	DWG	P-3485	1716-H BLDG GAS PUMP CONCRETE SLAB DETAILS		TCPC MF LIB.	S	.T.
OR-866	DWG	P-1761	PLAN OF STORAGE BASIN AND TRANSFER AREA MONORAIL SYSTEM				.T.
OR-867	DWG	SP-4858	100-H WATER FLOW DIAGRAM		TCPC MF LIB.	JJ,Z,M,C,AA, F	.T.
OR-868	DWG	H-1-15859	PERMANENT MARKERS OF BURIAL WASTE - 100-H SITE		TCPC MF LIB.	ZZ,G	.T.
OR-869	DWG	H-1-14681	FIRE AND SANITARY WATER MODIFICATIONS (D,F AND H AREAS)		TCPC MF LIB.	M,ZZ	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
OR-870	DWG	H-1-13254	PLOT PLAN CHEMICAL ADDITION STORAGE TANKS		TCPC NF LIB.	ZZ,EE,FF	.T.
OR-871	DWG	SK-1-5556	FACILITY LOCATION		TCPC NF LIB.	ZZ,P,EE,FF,A,DD,II,T,AA,JJ	.T.
OR-872	DWG	P-1963	STORAGE BASIN AND TRANSFER AREA: TRANSFER, WASH PAD AREA AND SECTIONS		TCPC NF LIB.	A	.T.
OR-873	DWG	P-1964	STORAGE BASIN AND TRANSFER AREA: PICKUP STATION AND SECTIONS		TCPC NF LIB.	A,KK	.T.
OR-874	DWG	P-3132	PRESTONE TANK 150 GAL. CAPACITY		TCPC NF LIB.	S	.T.
OR-875	DWG	SK-1-3656	EFFLUENT LINE 105-H TO 107-H (GRAVITY FLOW)		TCPC NF LIB.	ZZ,A,C,T,S,BB,DD,II,EE,FF,P	.T.
OR-876	DWG	P-9338	REARRANGEMENT OF 1717-H SHOP		TCPC NF LIB.	T	.T.
OR-877	DWG	P-9360	WELDING ANNEX TO 1717-H BLDG.		TCPC NF LIB.	T	.T.
OR-878	DWG	SK-1-7325	FLOOR PLAN EXISTING BLDG. (1717 COMBINED SHOPS)		TCPC NF LIB.	T	.T.
OR-879	DWG	SK-1-7326	FLOOR PLAN, PROPOSED BLDG ADDITION, SCHEME 1 (1717-H)		TCPC NF LIB.	T	.T.
OR-880	DWG	SK-1-7327	FLOOR PLAN, PROPOSED BLDG ADDITION, SCHEME 2 (1717-H)		TCPC NF LIB.	T	.T.
OR-881	DWG	SK-1-7328	PLANS AND SECTIONS, PROPOSED BLDG ADDITION (1717-H)		TCPC NF LIB.	T	.T.
OR-882	DWG	P-1941	GROUND FLOOR PLAN AND SCHEDULES (1717-H)		TCPC NF LIB.	T	.T.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
DR-883	DWG	P-9343	REARRANGEMENT OF 1717-H SHOP PIPING MODIFICATIONS		TCPC MF LIB. T		.T.
DR-884	DWG	P-1437	DRAINS AND SERVICE LINES, 1717-H. BLDG.		TCPC MF LIB. T		.T.
IN-881	INTRVIEW		CONTACT WITH JOHN ADAMS, RETIRED ENGINEER W/ UNITED NUCLEAR REQUEST FOR INTERVIEW WAS DECLINED.				.F.
IN-882	INTRVIEW		INTERVIEW WITH R.M. (BOB) BUSLACH, RETIRED FROM UNI REQUEST FOR INTERVIEW DECLINED DUE TO LACK OF COMPENSATION FOR SAME, 4/12/90, HE HAS VALUABLE INFORMATION ON THE FACILITIES NOTED.	RAD CONT,RELEASES,D EACT, NONRAD CONT,DECOM, DECONT		N,O,T,S	.F.
IN-883	INTRVIEW		INTERVIEW WITH L.E. (LARRY) DENTON, DATE 3/14/90, RETIRED UNI	RAD CONTAM, DECOM, DECONT		A,B,C,D,E,F, G,H,I,J,L,M, N,O,S,T,U,V, KK,ZZ	.F.
IN-884	INTRVIEW		INTERVIEW WITH K.R. (KEN) REID, DATE 3/14/90, RETIRED FROM BATTELLE PNL	RAD CONT, RELEASES		I,A,KK,B,C,E	.F.
IN-885	INTRVIEW		INTERVIEW WITH W.F. (BILL) HEINE, DATE 4/9/90, WITH WHC DBD				.F.
IN-886	INTRVIEW		INTERVIEW WITH W.G. (GERRY) ISAACSON, DATE 4/10/90	RAD CONTAM, RELEASES, DEACT, DECOMM		A,KK,ZZ,K,T, N,O	.F.
IN-887	INTRVIEW		INTERVIEW WITH R.L. (ROBLEY) JOHNSON, DATE 3/13/90, WORKED WITH DU PONT AS PHOTOGRAPHER				.F.
IN-888	INTRVIEW		INTERVIEW WITH W.K. (BILL) MCJILTON, DATE 2/20/90, CURRENTLY WITH	RAD CONTAM,		A,H,S,T,U,DD	.F.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
			NHC	RELEASES, NONRAD CONTAM		,KK,C	
IN-009	INTRVIEW		INTERVIEW WITH W.C. (BILL) MORGAN, DATE 4/17/90, WITH BATTELLE PNL	DEACT		A	.F.
IN-010	INTRVIEW		INTERVIEW WITH F.E. (FRANK) OWEN, DATE 2/21/90, WAS WITH GE/UNI	RAD CONTAM, RELEASES		A,B,C,D,E,F, G,H,I,J,K,L, P,T,X,Z,DD,G G,HH,II,KK,Z Z	.F.
IN-011	INTRVIEW		INTERVIEW WITH E.W. (ED) POWERS, DATE 3/20/90, WITH NHC	RAD CONTAM, RELEASES, DECOMM, DECONT		A,B,C,D,F,I, J,K,M,P,Q,R, S,T,Z,AA,EE, FF,KK,ZZ	.F.
IN-012	INTRVIEW		INTERVIEW WITH V.R. (BOB) RICHARDS, DATE 3/12/90, WITH NHC	RAD CONTAM, RELEASES, DEACT, NONRAD CONTAM, DECOMM, DECONT		A,B,C,D,E,F, G,H,I,J,K,L, P,R,T,W,X,Z, AA,JJ,KK,ZZ	.F.
IN-013	INTRVIEW		INTERVIEW WITH R.K. (RALPH) WAHLEN, DATE 3/13/90, WITH NHC	RAD CONTAM, RELEASES, DEACT, NONRAD CONTAM, DECOMM, DECONT		A,B,C,D,E,F, G,H,I,J,K,L, M,N,O,P,Q,R, KK,ZZ	.F.
IN-014	INTRVIEW		INTERVIEW WITH R.A. (DICK) WINSHIP, DATE 2/28/90, WITH NHC	RAD CONTAM, RELEASES,		A,B,C,D,E,F, G,H,I,J,K,L,	.F.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
				DEACT, NONRAD CONTAM, DECOMM, .DECONT		M,N,O,P,Q,R, S,T,U,V,W,Z, AA,EE,FF,KK, ZZ	
IN-015	INTRVIEW		CONTACT WITH E.L.WOODS INTERVIEW DECLINED				.F.
MS-001	REPORT	NONE	WASTE INFORMATION DATA SYSTEM (WIDS) GENERAL SUMMARY REPORT, DSI, HONAN TO KRUG, 07/13/89	RAD CONTAM, NONRAD CONTAM, RELEASES, DECOM	A.KRUG (WHC)	A,C,E,G,H,I, D,J,K,N,O,F, P	.T.
MS-002	REPORT	89-AB-111	DOE-RL AUDIT OF THE 183-H SOLAR EVAPORATION BASINS FACILITY, LETTER (DOE-RL TO WHC) AND AUDIT REPORT, 08/16/89			P	.T.
MS-003	PAGE	D-19	PAGE FROM UNIDENTIFIED WHC DOCUMENT, SKETCH OF 100-H AREA OPERABLE UNITS 100-HR-1 AND 100-HR-2 WITH LOCATION CHANGES FROM V.R.RICHARDS			ZZ,L	.T.
MS-004	PAGE		MATRIX PAGE CONTAINING INFORMATION COMPILED FROM W.I.S.S AND W.I.D.S. INCLUDING FACILITY NUMBER, NAME, LOCATION, DIMENSIONS, CONSTRUCTION, INVENTORY, AND COMMENTS	RAD CONTAM, NONRAD CONTAM, RELEASES		ZZ	.T.
MS-005	M.FICHE	HW-74894 VOL.3	HAZARDS SUMMARY REPORT VOLUME 3. DESCRIPTION OF THE 100-B,100-C,100-D,100-DR,100-F AND 100-H PRODUCTION REACTOR PLANTS, GE, DATED 4/1/63,SECTIONS WERE PRINTED OFF OF M.FICHE,SOME ARE ILLEGIBLE		HANFORD TECHNICAL LIBRARY	P,EE,FF,B,KK ,ZZ	.T.
MS-006	REPORT	88-35	OCCURRENCE REPORT: DISPOSAL OF WASTE INTO UNAUTHORIZED 183-H SOLAR BASIN ON 10/3/88 AND 10/22/88, UNC CONTRACTOR	RELEASES, NONRAD CONTAM	SCI.CTR. READING RM.	P	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
MS-007	MAP	H-3-57210	100-H AREA WASTE		DOE PA/SI DOCUMENT	ZZ	.T.
MS-008	PAGE	105-3-86	REACTOR PLANT DEACTIVATION INSTRUCTIONS - 105-H AND 105-F STORAGE BASIN EARTH BACKFILLING OPERATION, DATED 11/16/64, BY C.E. LANGE AND L.B. UFKES	DEACT, DECOM, DECONT	2750-E, E.POWERS (WHC)	KK	.F.
MS-009	PAGES(2)	FEM-3784-REV.2	FACILITIES ENGINEERING MEMO, WORK AUTHORIZATION, PLANT MODIFICATION FOR REACTOR DEACTIVATION, DATED 1/25/65, BY R.T. JESSEN, PROJECT ACE-107	DEACT, DECOM, DECONT	2750-E, E.POWERS (WHC)	KK,ZZ	.F.
PH-001	PHOTO	1112 B12103	100-H AREA - B&W AERIAL VIEW OF INITIAL SITE PREPARATION ACTIVITY, DATED 06/25/48		712 BLDG	ZZ	.T.
PH-002	PHOTO	1115 B12103	B&W AERIAL VIEW OF 100-H AREA FROM THE NE, DATED 03/21/49		712 BLDG	ZZ	.T.
PH-003	PHOTO	1005 B12103	1704-H, BLACK AND WHITE PHOTOGRAPH DATED 07/29/49		712 BLDG	DD	.T.
PH-004	PHOTO	1235 B12103	104-H POWER HOUSE, BLACK AND WHITE PHOTOGRAPH DATED 08/05/49		712 BLDG	ZZ	.T.
PH-005	PHOTO	1402 B12103	190-H BUILDING, BLACK AND WHITE PHOTOGRAPH DATED 10/20/49		712 BLDG	EE	.T.
PH-006	PHOTO	1532 B12103	183-H FILTER PLANT (116-H-6), BLACK AND WHITE PHOTOGRAPH, DATED 10/20/49		712 BLDG	P	.T.
PH-007	PHOTO	1199 B12103	107-H RETENTION BASIN (116-H-7), BLACK AND WHITE PHOTOGRAPH DATED 10/20/49		712 BLDG	C,ZZ	.T.
PH-008	PHOTO	4045 B12105	B&W AERIAL VIEW OF 100-H AREA FROM THE SOUTH, DATED 06/54 8 1/2" x 11", PH-019 IS PRINT OF SAME PHOTO AT 20" x 16" SIZE.		712 BLDG	ZZ	.T.

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-809	PHOTO	3722 B12185	190-H BUILDING ANNEX, BLACK AND WHITE PHOTOGRAPH DATED 03/27/56		712 BLDG	EE,FF	.I.
PH-810	PHOTO	3748 B12185	B&W AERIAL VIEW OF 100-H AREA FROM THE EAST, DATED 05/15/56		712 BLDG	ZZ	.I.
PH-811	PHOTO	3745 B12185	B&W AERIAL VIEW OF 100-H AREA FROM THE SOUTH, DATED 05/15/56		712 BLDG	ZZ	.I.
PH-812	PHOTO	186669-68CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 183-H BASINS (116-H-6)	DECON	712 BLDG	P	.I.
PH-813	PHOTO	186669-61CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 105-H BLDG (116-H-6)	DECON	712 BLDG	A	.I.
PH-814	PHOTO	186669-66CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 1713-H BLDG.	DECON	712 BLDG	1713-H	.I.
PH-815	PHOTO	186669-65CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 107-H BASINS (116-H-7)	DECON	712 BLDG	C	.I.
PH-816	PHOTO	186669-64CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 105-H BLDG.(116-H-6)	DECON	712 BLDG	A,F,K	.I.
PH-817	PHOTO	186669-63CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 105-H BLDG. (116-H-6)	DECON	712 BLDG	A,K	.I.
PH-818	PHOTO	186669-62CN	COLOR AERIAL PHOTOGRAPH DATED 03/16/83, 105-H BLDG. (116-H-6)	DECON	712 BLDG	A,K,F	.I.
PH-819	PHOTO	4945 B12185	B&W AERIAL VIEW OF 100-H AREA FROM THE SOUTH, 20" X 16", DATED 6/54. PH-808 IS 8 1/2" x 11" PRINT OF SAME PHOTO.		712 BLDG	ZZ	.I.
PH-820	PHOTO	658 B12182	B&W AERIAL VIEW OF 181-H CONSTRUCTION, DATED 8/13/48		712 BLDG	181-H	.I.
PH-821	PHOTO	42216-3CN	AERIAL, B&W, 100-H AREA, DATED 5/10/66		712 BLDG	ZZ	.I.
PH-822	PHOTO	86A849-6CN	VIEW OF THE 105-H FUEL STORAGE BASIN BACKFILLED WITH SOIL, FROM WINSHIP INTERVIEW	DECON	381 FED. WINSHIP (WHC)	KK	.F.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-023	PHOTO	0206443-20CN	VIEW OF THE 105-H FUEL STORAGE BASIN BACKFILLED WITH SOIL, FROM WINSHIP INTERVIEW	DECOM	381 FED. WINSHIP (WHC)	KK	.F.
PH-024	PHOTO	05H661-6CN	VIEW OF 190-H PROCESS WATER TUNNELS IN JANUARY 1986 SHOWING CRANE CAVING IN ROOF OF TUNNEL DURING DECOMMISSIONING, FROM WINSHIP INTERVIEW	DECOM	381 FED. WINSHIP (WHC)	EE	.F.
PH-025	PHOTO	06F947-8CN	VIEW OF ASBESTOS REMOVAL ACTIVITY IN 105-H REACTOR BLDG., FROM WINSHIP INTERVIEW	DECOM	381 FED. WINSHIP (WHC)	A	.F.
PH-026	PHOTO	129974-1CN	VIEW OF ASBESTOS REMOVAL ACTIVITY IN 105-H REACTOR BLDG., DATED 2/11/87, FROM WINSHIP INTERVIEW	DECOM	381 FED. WINSHIP (WHC)	A	.F.
PH-027	PHOTO	86A858-13CN	VIEW OF ASBESTOS REMOVAL ACTIVITY IN 105-H REACTOR BLDG., DATED FEB.-JULY 1986, FROM WINSHIP INTERVIEW	DECOM	381 FED. WINSHIP (WHC)	A	.F.
PH-028	PHOTO	85385-41CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE SOUTHEAST, DATED 6/13/79, FROM WINSHIP INTERVIEW		381 FED. WINSHIP (WHC)	ZZ	.F.
PH-029	PHOTO	85385-34CN	COLOR AERIAL OF THE 100-H AREA FROM THE SOUTH, DATED 6/13/79, FROM WINSHIP INTERVIEW		381 FED. WINSHIP (WHC)	ZZ	.F.
PH-030	PHOTO	0206443-17CN	COLOR AERIAL VIEW OF 100-H AREA FROM NORTH, DATED 1982, FROM WINSHIP INTERVIEW		381 FED. WINSHIP (WHC)	ZZ	.F.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-831	PHOTO	138825-1CN	VIEW OF D&D ACTIVITY TAKING PLACE AT THE 107-H RETENTION BASINS, OCT.- DEC. 1985, FROM WINSHIP INTERVIEW	DECOM, DECONT	381 FED. WINSHIP (WHC)	C	.F.
PH-832	PHOTO	85G835-11CN	VIEW OF D&D ACTIVITY TAKING PLACE AT THE 107-H RETENTION BASINS, OCT. - DEC. 1985, FROM WINSHIP INTERVIEW	DECOM, DECONT	381 FED. WINSHIP (WHC)	C	.F.
PH-833	PHOTO	85G996-1CN	VIEW OF D&D ACTIVITY TAKING PLACE AT THE 107-H RETENTION BASINS OCT. DEC. 1985, FROM WINSHIP INTERVIEW	DECOM, DECONT	381 FED. WINSHIP (WHC)	C	.F.
PH-834	PHOTO	85G554-1CN	VIEW OF D&D ACTIVITY TAKING PLACE AT THE 107-H RETENTION BASINS OCT. - DEC. 1985, FROM WINSHIP INTERVIEW	DECOM, DECONT	381 FED. WINSHIP (WHC)	C	.F.
PH-835	PHOTO	85030858-28CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE EAST, DATED 1985		712 BLDG	ZZ,A,C	.T.
PH-836	PHOTO	8503858-27CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE NE, DATED 1985		712 BLDG	A,P	.T.
PH-837	PHOTO	8503858-25CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE NW, DATED 1985		712 BLDG	A,C,P(&1713 BLDG)	.T.
PH-838	PHOTO	88081923-27CN	COLOR AERIAL VIEW OF 100-H FROM THE EAST, DATED 8/19/88		712 BLDG	ZZ,A,C,P(&17 13)	.T.
PH-839	PHOTO	88081923-25CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE NW, DATED 8/19/88		712 BLDG	ZZ	.T.
PH-840	PHOTO	88081923-26CN	COLOR AERIAL VIEW OF 100-H AREA FROM THE NORTH, DATED 8/19/88		712 BLDG	ZZ,A,C,P(&17 13)	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-841	PHOTO	05030858-30CN	COLOR AERIAL VIEW OF 100-N AREA FROM THE SE, DATED 1985		712 BLDG	ZZ,A,C	.T.
PH-842	PHOTO	05030858-26CN	COLOR AERIAL VIEW OF 100-N AREA FROM THE NE, DATED 1985		712 BLDG	ZZ,C	.T.
PH-843	PHOTO	05030858-29CN	COLOR AERIAL VIEW OF 100-N AREA FROM THE EAST, DATED 1985		712 BLDG	ZZ,A,C,P(&17 (3)	.T.
PH-844	PHOTO	0503858-31CN	COLOR AERIAL VIEW OF 100-N AREA FROM THE SW, DATED 1985		712 BLDG	ZZ,A,C	.T.
PH-845	PHOTO	676 B12102	B&W AERIAL VIEW OF 181-H, DATED 6/7/49		712 BLDG	181-H	.T.
PH-846	PHOTO	678 B12102	B&W AERIAL VIEW OF 181-H CONSTRUCTION, DATED 6/15/49		712 BLDG	181-H	.T.
PH-847	PHOTO	1947 B12104	B&W AERIAL VIEW OF 105-H CONSTRUCTION, DATED 10/12/48		712 BLDG	A	.T.
PH-848	PHOTO	1961 B12104	B&W AERIAL VIEW OF 105-H CONSTRUCTION DATED 11/10/48		712 BLDG	A	.T.
PH-849	PHOTO	1962 B12104	B&W AERIAL VIEW OF 105-H CONSTRUCTION, DATED 12/3/48		712 BLDG	A	.T.
PH-850	PHOTO	715 B12102	B&W AERIAL VIEW OF 182-H CONSTRUCTION, DATED 6/27/49		712 BLDG	A	.T.
PH-851	PHOTO	781 B12012	B&W AERIAL VIEW OF 182-H CONSTRUCTION, DATED 3/21/49		712 BLDG	A	.T.
PH-852	PHOTO	3921 B12105	B&W AERIAL VIEW LOOKING NE AT CONSTRUCTION SITE OF 190-H ANNEX, DATED 6/56 (CG-558-11)		712 BLDG	FF	.T.
PH-853	PHOTO	3865 B12105	B&W AERIAL LOOKING SW AT 190-H ANNEX CONSTRUCTION SITE, DATED 8/24/56		712 BLDG	FF	.T.
PH-854	PHOTO	3858 B12105	B&W AERIAL SHOWING EAST CONSTRUCTION SITE OF 190-H ANNEX, DATED 10/31/56		712 BLDG	FF	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-855	PHOTO	3004 B12105	B&W AERIAL LOOKING NW AT CONSTRUCTION SITE OF 190-H ANNEX, DATED 9/27/56		712 BLDG	FF	.T.
PH-856	PHOTO	3770 B12105	B&W AERIAL LOOKING NE AT CONSTRUCTION SITE OF 190-H ANNEX, DATED 7/23/56 (CG-556-11)		712 BLDG	FF	.T.
PH-857	PHOTO	3710 B12105	B&W AERIAL LOOKING EAST AT CONSTRUCTION SITE OF 190-H ANNEX, DATED 3/8/56		712 BLDG	EE,FF,A,C,T, DD,S,BB	.T.
PH-858	PHOTO	3677 B12105	B&W AERIAL LOOKING NE AT CONSTRUCTION SITE OF 190-H ANNEX, DATED 1/31/56		712 BLDG	FF,A,EE	.T.
PH-859	PHOTO	1224 B12103	B&W AERIAL OF CONSTRUCTION ON 184-H, DATED 4/6/49		712 BLDG	184-H,R	.T.
PH-860	PHOTO	1446 B12103	B&W AERIAL SHOWING CONSTRUCTION OF 190-H, DATED 11/9/48		712 BLDG	EE	.T.
PH-861	PHOTO	1524 B12103	B&W AERIAL SHOWING 183-H, DATED 8/5/49		712 BLDG	P,R	.T.
PH-862	PHOTO	1167 B12103	B&W AERIAL SHOWING CONSTRUCTION OF 107-H, DATED 11/9/48		712 BLDG	C	.T.
PH-863	PHOTO	1173 B12103	B&W AERIAL SHOWING CONSTRUCTION OF RIVER-SIDE TERMINUS OF PROCESS EFFLUENT PIPELINE, DATED 12/31/48		712 BLDG	C	.T.
PH-864	PHOTO	1174 B12103	B&W AERIAL SHOWING CONSTRUCTION OF PIPELINE AT PROCESS EFFLUENT OUTFALL STRUCTURE, DATED 12/31/48		712 BLDG	C,ZZ,DD,EE,A	.T.
PH-865	PHOTO	1170 B12103	B&W AERIAL SHOWING CONSTRUCTION OF 107-H AND PIPEINE AT PROESS EFFLUENT OUTFALL STRUCTURE, DATED 12/3/48		712 BLDG	C,DD,EE,A,ZZ ,D	.T.
PH-866	PHOTO	1175 B12103	B&W AERIAL SHOWING CONSTRUCTION OF 107-H, DATED 1/19/48		712 BLDG	C,DD,A	.T.

100-HR-1 OPERABLE UNIT SOURCE DATA COMPILATION

ASI NUMBER	TYPE	INFORMATION NUMBER	SUBJECT OF INFORMATION	KEYWORD(S)	PLACE ITEM LOCATED	FACILITY CODES	LOCATED AT ASI
PH-067	PHOTO	1102 B02103	B&W AERIAL SHOWING CONSTRUCTION OF PROCESS EFFLUENT PIPELINE AT JUNCTION WITH 107-H, DATED 3/21/49		712 BLDG	C	.T.
PH-068	PHOTO	1105 B02103	B&W AERIAL SHOWING CONSTRUCTION OF PROCESS EFFLUENT OUTFALL STUCTURE, DATED 4/6/49		712 BLDG	C,D,DD	.T.
PH-069	PHOTO	1101 B02103	B&W AERIAL SHOWING CONSTRUCTION OF 107-H, DATED 3/3/49		712 BLDG	C,BB,DD,P,R	.T.
PH-070	PHOTO	2045 B02104	B&W AERIAL VIEW OF 100-H AREA FROM THE SW, DATED 6/8/53		712 BLDG	ZZ	.T.

THIS PAGE INTENTIONALLY
LEFT BLANK

APPENDIX B

PERSONNEL INTERVIEWED FOR 100-HR-1 SOURCE DATA COMPILATION

APPENDIX B

PERSONNEL INTERVIEWED FOR 100-HR-1 SOURCE DATA COMPILATION

The following table lists the personnel who participated in the interview process for this task. With the exception of Bill Heine, who was willing to be interviewed but was out of town, a "No" listed in the "Interviewed" column indicates that the individual was contacted but declined to participate.

NAME	ASI NUMBER	INTERVIEWED	AREA OF EXPERTISE	COMPANY
Adams, JA	IN-001	No	Decommissioning	Retired
Buslach, RM	IN-002	No	Decommissioning	Retired
Denton, LE	IN-003	Yes	Reactor Operations	Retired
Heid, KR	IN-004	Yes	Radiation Monitoring	Retired
Heine, WF	IN-005	No	D & D	WHC
Isaacson, MG	IN-006	Yes	Radiation Monitoring	Retired
Johnson, RL	IN-007	Yes	Photography	Retired
McJilton, WK	IN-008	Yes	Reactor Operations	WHC
Morgan, WC	IN-009	Yes	Graphite Research	PNL
Owen, FE	IN-010	Yes	Health Physics	PNL
Powers, EW	IN-010	Yes	D & D	WHC
Richards, VR	IN-012	Yes	D & D	WHC
Wahlen, RK	IN-013	Yes	D & D	WHC
Winship, RA	IN-014	Yes	D & D	WHC
Woods, EC	IN-015	No	D & D	Retired

APPENDIX C

100-HR-1 SOURCE DATA COMPILATION INTERVIEW WORKLIST

100-HR-1 RFI/CMS SOURCE DATA COMPILATION
INTERVIEW WORKLIST

INTERVIEWEE: _____ DATE: _____

INTERVIEWED BY: _____

1. Do you have any knowledge about the location of the 105-H pluto crib?

2. The 100-HR-1 Work Plan uses the 105-DR reactor as an analog to the 105-H reactor for the purposes of estimating the radionuclide inventory in the 105-H reactor building. Is this assumption justifiable? Were the reactors similar or identical? Did the reactors experience similar operative power-time history?

3. Are you aware of any isotopic uranium analyses available for the 105-H reactor, or other Hanford reactors?

4. Do you have any knowledge about the 105-H fuel storage basins, particularly knowledge regarding the integrity of the basins during use?

PAGE ___ OF ___

INTERVIEWEE: _____

5. Do you have any knowledge about the system used to detect fuel failures such as response times and sensitivities and how the reactor coolant water was monitored?

6. Do you have any knowledge about stack emissions from the 116-H reactor stack?

7. Is the facility indicated as 132-H-2 on the enclosed maps the 117-H filter building? If not, what is this facility?

8. What was the nature and extent of leaks from the process effluent pipelines? Do you recall any locations along the pipelines where steam escaped to the ground surface?

PAGE ___ OF ___

INTERVIEWEE: _____

9. Photographs of the 107-H process effluent disposal trench indicate 3 lobes on the trench. The lobe nearest the 107-H basins was obviously used for disposal of process effluent. Were the other lobes used for disposal?

10. Do you have any knowledge about the location of the sludge burial trench used to bury sludge from the 107-H basins?

11. Were the side walls and bottom of the 107-H Basins coated with asphalt prior to demolition?

12. Do you have any knowledge about the post-reactor temperature of process effluent discharged to the 107-H Basins, holding times for the effluent basins, or cooling water use rates?

PAGE ___ OF ___

INTERVIEWEE: _____

13. How were liquids that collected in the sumps in the 1608-H pump house discharged to the 1608-H effluent disposal trench--were there underground sewers or aboveground pipes or hoses? Do you have any knowledge about an overflow of the trench to an area between the railroad tracks south of the reactor building?

14. Do you have any knowledge about the operation of the 190-H Building? Were there spills, leaks, or continuous releases of chemicals (e.g., sodium dichromate, alum, chlorine) or chemically treated water? Were releases within the building flushed to the sanitary sewers or process sewers?

15. Do you have any knowledge of how wastes from the paint, auto repair, and combined shops were disposed? Related question for 1717-H Hot Shop and associated French drain.

PAGE ___ OF ___

INTERVIEWEE: _____

16. Do you have any knowledge about the disposition of underground storage tanks (e.g., tanks at 190-H and auto repair shop)?

17. Did the 187-H-1 and 187-H-2 emergency cooling water tanks contain treated or untreated water? Do you know why sodium silicate was added to the water in these tanks? How were the tanks decommissioned?

18. During decommissioning of 100-H Area, were the 1607-H-2 and 1607-H-3 septic tanks left as is or were they back-filled?

19. Oils containing PCB's were used in a number of applications--electrical transformers, hydraulic fluids, etc. Do you have any knowledge regarding how oils originating from equipment leaks, normal operations, and maintenance were disposed? If discharged to floor drains, did these drains lead to the sanitary sewer or the process sewer? Were waste oils used for dust control on roadways, and if so, would there be records of their use?

PAGE ___ OF ___

INTERVIEWEE: _____

20. How were asbestos-containing materials handled during operations and decommissioning? Would asbestos containing debris be buried on-site at 100-H?

21. Do you have any knowledge regarding the storage and use of pesticides, herbicides, or soil sterilants in 100-H? If so, do you know the identity of the chemicals used?

22. Do you have any knowledge of any major construction in the 100-H Area after the completion of the reactor? Would this construction be documented--photographs, etc.?

23. Do you have any knowledge regarding the enclosed list of facilities--disposal practices, locations, releases, decommissioning, etc.? (Use list of facilities and maps.)

THIS PAGE INTENTIONALLY
LEFT BLANK